

00417

1976/07/00

DDI-2680-32-76



DEFENSE INTELLIGENCE AGENCY



Handbook on the Chinese Armed Forces



JULY 1976


HANDBOOK ON THE CHINESE ARMED FORCES

FOREWORD

This handbook is designed to provide a concise and readable synopsis of the armed forces of the Peoples Republic of China. It is intended for use as an aid in unit training and should prove useful to the individual soldier, sailor, airman and marine as well as to unit commanders and staffs. The contents of this handbook are based on known Chinese practice and publications up to mid-1976.

An effort has been made to make the handbook as comprehensive as possible, though the material, interpretations, and conclusions are subject to modification in the light of new information and developments. Organizations and equipments can change, bringing about modification of tactics and even doctrine; accordingly, the reader should make adjustments for any such changes which are subsequently reported.

Any changes or suggestions for incorporation in future revisions may be addressed to: Deputy Director for Intelligence, ATTN: DIR-2B, Defense Intelligence Agency, Washington D.C., 20301.



LIN QIAN D. FAURER
Major General, USAF
Deputy Director for Intelligence

TABLE OF CONTENTS

	Page
Foreword	ii
CHAPTER 1 THE PEOPLES LIBERATION ARMY AND GROUND FORCES ORDER OF BATTLE	
Section I Roles, Composition, Historical Development, Doctrine, and Nature of Combat	
Chinese Armed Forces	1-1
Roles	1-1
Composition	1-1
Historical Development	1-2
Doctrine	1-7
Nature of Combat	1-10
Section II Ground Forces Order of Battle	
Chinese Ground Forces	1-11
Subordination to Military Regions	1-11
Strength and Mobilization	1-11
Foreign Military Agreements	1-11
CHAPTER 2 ORGANIZATION AND EQUIPMENT	
Section I Organization	
The Chinese High Command	2-1
Organization of a Front	2-1
Army	2-6
Main Forces	2-6
Local Forces	2-10
Paramilitary Forces	2-13
Section II Equipment	
Operational Concepts	2-17
Operational Requirements	2-17
Mobility	2-20
Details	2-20

CHAPTER 3--THE BASIS OF CHINESE TACTICS

Section I--Command and Control

Organization of Headquarters	3-1
Formation Commanders	3-1
Location and Movement of Headquarters	3-2
Orders and Instructions	3-2

Section II--Tactical Principles

General Principles	3-6
Echelons	3-7
Special Techniques	3-7

Section III--Reconnaissance

Reconnaissance Means	3-9
Air Reconnaissance	3-12
Patrols and Raids	3-12
Motorized Reconnaissance	3-1
Artillery Observation	3-15

Section IV--Firepower

Nuclear Fire Support	3-15
Chemical Fire Support	3-18
Conventional Surface-to-Surface Artillery	3-8
Tank and Antitank Fire	3-19
Offensive Air Support	3-21
Air Defense	3-22

Section V--Maneuver

In the Attack	3-22
In the Defense	3-26
Movements	3-26
Obstacle Crossing	3-30

CHAPTER 4--PHASES OF WAR AND SPECIALIZED WARFARE

Section I--Offensive Operations

Doctrine	4-1
Application	4-1
Basic Principles	4-3
Front, Army Group, and Army Offensive	4-7
Divisions, Regiments and Battalions	4-8
The Advance	4-8

	Page
The Attack	4-12
The Quick Attack	4-15
The Deliberate Attack	4-16
The Pursuit	4-20
Section II - River Crossing	
Nonengineer Water-Crossing Capability	4-26
Engineer Water-Crossing Equipment	4-26
Conduct of the Operation (in the hasty crossing)	4-27
The Deliberate Crossing	4-28
Section III - Defensive Operations	
Forms of Defense	4-30
Organization for Defense	4-30
The Division in Positional Defense	4-31
The Mobile Defense at Division Level	4-40
Section IV - Retrograde Operations	
The Withdrawal	4-44
Delaying Action	4-46
The Retirement	4-46
Section V - Airborne Operations	
Parachute Operations	4-47
Types of Operations	4-48
Conduct of Operations	4-48
Section VI - Warfare under Special Conditions	
Amphibious Operations	4-48
Cold Weather Warfare	4-52
Fighting in Built-up Areas	4-55
Mountain Warfare	4-55
Jungle Warfare	4-56

CHAPTER 5--LOGISTICS AND PERSONNEL

Section I - Logistics

Overview	5-1
System of Supply	5-6
Ammunition	5-6
POI	5-10
Rations and Water	5-10
Medical	5-13

	Page
Recovery and Repair	5-13
Reinforcement	5-17
Prisoners of War	5-17

Section II - The Chinese Soldier

Profile of the Chinese Soldier	5-19
Rank	5-21
Morale	5-21
Conscription	5-21
Terms of Service	5-21
Demobilization	5-21
Training	5-25
Conditions of Service	5-25
Discipline	5-25
Day Rooms	5-27

Section III - The Chinese Officer

Status	5-30
Officer Selection	5-30
Military Education	5-30
The Life of the Officer	5-32
Conditions of Service	5-32
Combat Efficiency	5-34

CHAPTER 6 THE CHINESE NAVY

Historical Background	6-1
Current Status	6-1
Mission	6-1
Capability	6-2
Organization	6-2
Doctrine and Tactics	6-11
Personnel and Training	6-11
Naval Vessels	6-12

CHAPTER 7 THE CHINESE AIR FORCE

Historical Background	7-1
Current Status	7-1
Mission	7-1
Capability	7-1
Organization	7-1
Doctrine and Tactics	7-6
Personnel and Training	7-6
Aircraft	7-8
Airfields	7-8

CHAPTER 8 - CHINESE MISSILE SYSTEMS

Overview	8-1
Background	8-1
Strategic Capability	8-1
Strategic Ballistic-Missile Systems	8-1
Submarine-launched Ballistic Missiles	8-2
Tactical Nuclear Missiles	8-2
Other Missile Systems	8-3

CHAPTER 9 THE POLITICAL STRUCTURE OF THE PEOPLES LIBERATION ARMY

Background	9-1
Politicization of the PLA	9-1
Political Schools and Academies	9-4

CHAPTER 10 UNIFORMS AND INSIGNIA - AWARDS AND DECORATIONS

Section I Uniforms and Insignia

Background	10-1
Army Uniforms	10-1
Navy Uniforms	10-1
Air Force Uniforms	10-5
Special Uniforms	10-10
Insignia	10-10

Section II Awards and Decorations

Background	10-13
Honorary Titles	10-13
Medals and Badges	10-13

FIGURES

1. China-India Frontier Area	1-8
2. Map Military Regions	1-12
3. Effective Range of Chinese Reconnaissance Means	2-16
4. Penetration Envelopment Attack	4-2
5. One Point, Two Sides	4-4
6. Divide and Destroy	4-5
7. The Attack	4-6

	Page
8. The Movement to Contact and Meeting Engagement by an Infantry Division	4-9
9. Division Defense Boundaries	4-29
10. Positional Defense - The Division	4-32
11. Mobile Defense - The Division	4-41
12. The Withdrawal	4-45
13. System of Supply	5-7
14. PRCN Organization	6-4
15. Naval Order of Battle and Bases	6-7
16. Organization of PRC Air Forces	7-7
17. Army Officers Uniforms and Insignia	10-2
18. Army Enlisted Uniforms and Insignia	10-3
19. Army Enlisted Uniforms and Insignia	10-4
20. Naval Officers Uniforms and Insignia	10-6
21. Naval Enlisted Uniforms and Insignia	10-7
22. Naval Enlisted Uniforms	10-8
23. Air Force Uniforms and Insignia	10-9
24. Air Force Uniforms	10-11
25. Public Security Bureau Uniforms and Insignia (Peoples Police)	10-12
26. Chinese Peoples Liberation Army Badges	10-12

ANNEXES

A	Military Organization of the Peoples Republic of China	A-1
B	Organization of an Army	A-2
C	Organization of an Infantry Division	A-3
D	Organization of an Infantry Regiment, Infantry Division	A-4
F	Organization of a Tank, Assault Gun Regiment, Infantry Division	A-5
F	Organization of an Infantry Battalion	A-6
G	Organization of an Airborne Division	A-7
H	Organization of an Armored Division	A-8
I	Organization of an Armored Regiment, Armored Division	A-9
J	Organization of a Mechanized Infantry Regiment, Armored Division	A-10
K	Organization of an Artillery Division	A-11
L	Organization of an Antiaircraft Artillery Division	A-12
M	Organization of an Antitank Artillery Division	A-13
N	Organization of an Engineer Regiment	A-14
O	Organization of a Ponton Bridge Regiment	A-15
P	Organization of a Signal Regiment	A-16
Q	Organization of a Motor Transport Regiment	A-17
R	Organization of a Railway Engineer Division	A-18
S	Organization of a Border Defense Division	A-19
T	Organization of an Internal Defense Division	A-20
U	Organization of a Garrison Division	A-21

	Page
V. Probable Minis Organization	A-22
W. Organization of the Production and Construction Corps (PCC) within a Military Region	A-23
X. Chinese Ground Forces Equipment:	A-24
Appendix 1-Armored Vehicles	A-25
Appendix 2-Infantry Weapons	A-27
Appendix 3-Artillery	A-29
Appendix 4-Engineer Equipment	A-32
Appendix 5-Signal Equipment	A-33
Appendix 6-Tracked Tractors	A-36
Appendix 7-Load-Carrying Wheeled Vehicles	A-37
Appendix 8-Chemical Equipment	A-39
Y. Chinese Naval Vessels	A-40
Z. PRCAF Aircraft	A-41
Appendix 1-Chinese Aircraft	A-43
AA. PRC Missiles	A-50

Distribution



Chen Hsi-shen, Commander
Peking Military Region



Yen Chen-ying, Minister of National
Defense



Mao Tse-tung, Chairman of the Chinese Communist Party (CCP)
and Chairman of the Military Commission of the CCP



Hsu Shin-yu, Commander
Canton Military Region



Li Te-sheng, Commander
Shensi Military Region

CHAPTER 1 THE PEOPLES LIBERATION ARMY AND GROUND FORCES ORDER OF BATTLE

SECTION 1. ROLES, COMPOSITION, HISTORICAL DEVELOPMENT, DOCTRINE, AND NATURE OF COMBAT

Chinese Armed Forces

1-1. The Peoples Liberation Army (PLA) the collective name for the armed forces of the Peoples Republic of China (PRC) is the world's largest military force. The PLA, which encompasses the army, the navy, and the air force, has a total strength of about 4 million men. The ground forces total some 3.5 million men or about 85 percent of the PLA's total manpower. The navy and air force, though significantly smaller, are the largest in Asia and the third largest in the world.

Roles

1-2. The deployment, composition and size of Chinese armed forces are dictated by their roles which are:

- a. To defend the Chinese Communist Party.
- b. To defend the territory of the PRC.
- c. To deter attack by any nation and, should deterrence fail, to bring any war to a conclusion favorable to the PRC.
- d. To assist in the maintenance of internal security.
- e. To engage in production and construction work and in the national development of the PRC.
- f. To support the foreign policy objectives of the PRC.

Composition

1-3. The Chinese armed forces consist of the Peoples Liberation Army and the Paramilitary.

- a. The Peoples Liberation Army includes:
 - (1) The Army - PRCA,
 - (2) The Navy - PRCN,
 - (3) The Air Force - PRCAF.
- b. The Paramilitary includes:
 - (1) The Militia,
 - (2) The Production and Construction Corps - PCC.¹

1-4. The PLA is controlled by the Military Commission (MC) of the Chinese Communist Party through General Departments and consists of the following services:

- a. Ground forces,
- b. Air forces (includes air defense).

¹ The PCC, although a paramilitary force, is officially part of the PLA.

- c. Naval forces (includes naval air force).
- d. Missile forces.

Historical Development

1-5. The birthplace of the Peoples Liberation Army is Nanchang where on 1 August 1927 some 30,000 Communists and dissidents of Chiang Kai-shek's National Revolutionary Army revolted against the central government in Nanking. While the insurrection was unsuccessful, it marked the beginning of the armed struggle for political power between the Chinese Communists and the Kuomintang (KMT).²

1-6. During the period 1930-34, the Nationalists undertook five major "annihilation campaigns" against the Communist forces in Kiangsi Province. They finally succeeded in encircling the Communists but in October 1934 Mao Tse-tung and the First Front Army broke through the encirclement and, together with forces from other areas, began the epic 6,000-mile "Long March," which ended one year later in Yenan, Shensi Province.

1-7. The political struggle between the Nationalists and the Communists continued in a desultory manner despite efforts by Mao to bring the fighting to an end and unite with the Nationalists in an attempt to halt Japanese aggression in China which had begun in 1931. It was not until 1937 that the Nationalists agreed to join the Communists in a "united front." Ostensibly integrated with the Nationalist Army to fight the Japanese, the Communists concentrated on winning over the people, integrating military and civilian activities, and setting up base areas from which to mount guerrilla operations. Mao's policy essentially was to conserve the strength of his army and avoid decisive engagements while consolidating his political power. It has been described as 70 percent expansion, 20 percent skirmishing with the Nationalists, and 10 percent fighting the Japanese.

1-8. The Japanese surrender in August 1945 precipitated a race between the Nationalists and Communists for control of the mainland. The Communists, under Lin Biao, moved an estimated 100,000 troops into the prized area of Manchuria where they made contact with the Soviet forces which had accepted the surrender of the Japanese Kwantung Army. Following the Soviet withdrawal in 1946, large stocks of Japanese arms and equipment, including heavy artillery, armor and some aircraft, were allowed to fall into the hands of the Communist forces, by then renamed the Chinese Peoples Liberation Army (PLA).

1-9. Civil war was renewed in July 1946 after negotiations failed to produce a political settlement. The general situation at that time was one in which the Nationalists secured the cities and main lines of communication, while the Communists controlled the countryside and waged a war of attrition. The strength of the Communist forces had grown to over one million men, with a militia of about 2 million. During the summer of 1947, the PLA embarked upon large-scale offensive operations against the Nationalists destroying their forces

² The Kuomintang for Nationalist Party was founded in 1912 following the collapse of the Ching Dynasty in 1911. Chiang Kai-shek had assumed leadership of the Kuomintang upon the death of Sun Yat-sen, one of its founders, in 1925.



In October 1950 the PVA entered the Korean War under the name of the Chinese Peoples Volunteers

piecemeal through a combination of guerrilla and conventional warfare. Following the fall of Peking in January 1949, Nationalist resistance virtually collapsed. In March of that year, the PLA crossed the Yangtze River and captured Nanking; a month later Shanghai fell. In August the Nationalist government withdrew to Taiwan (Formosa). On 1 October 1949 the Peoples Republic of China (PRC) was founded.

1-10. The Chinese Communist Army of 1949 was basically a peasant-infantry force organized and trained mainly for guerrilla-type operations in which conventional military science and technology played a lesser role. Its firepower, mobility, communications, and logistics were limited and for the most part archaic. The PRC clearly recognized the need to modernize its military establishment. This modernization process was initiated with the signing of the 1950 Treaty of Friendship, Alliance, and Mutual Assistance between China and the Soviet Union. Additional impetus to the PLA's modernization process was provided by its experiences in the Korean War, which the PLA entered in October 1950 under the aegis of the Chinese Peoples Volunteers. In Korea, initial successes aside, the Chinese quickly learned that in the offensive, unsupported massed infantry attacks ("human wave tactics") against vastly superior firepower were not only unavailing but in most cases led to disastrously high losses in personnel and equipment. Furthermore, to avoid the possibility of United Nations forces entering the PRC proper, the Chinese found themselves in a situation in which they were unable to employ the *Peoples War* doctrine of strategic retreat (see paragraph 1-18). They were no longer able to trade space for time as they had done in the past in the vast heartland of China. For the first time, they were forced to assume a form of defense previously abhorrent to them: a linear, positional defense.

1-11. Taking advantage of the provisions of the 1950 Sino-Soviet Treaty and of the Soviet advice and assistance furnished during the Korean War, the Chinese leadership decided to modernize the PLA generally along the lines of the Soviet model, utilizing Soviet tables of organization and equipment (TOE) and the combined-arms concept of armor and artillery-heavy mobile forces. It should be pointed out that these "foreign" concepts were accepted and implemented in the light of the *Thoughts of Mao Tse-tung* and as they pertained to the peculiar circumstances and conditions in China. However, the deepening of the Sino-Soviet dispute, followed by the total withdrawal of Soviet and allied technicians in 1960, forced the Chinese to chart a course of military self-reliance which continues today.

1-12. During the mid and late 1950's, Chinese relations with India slowly deteriorated due in part to conflicting claims over nearly 40,000 square miles of territory that India regarded as its own. This territory included virtually the whole North East Frontier Agency (NEFA) of Assam and parts of Ladakh, particularly the area of Aksai Chin through which China had constructed a highway in 1957 linking Tibet and Sinkiang. In October 1962, following mutual allegations of frontier intrusions, the Chinese launched large-scale attacks in the NEFA and Ladakh. While Chinese forces penetrated as far down as the foothills of the Himalayas in the western sector of NEFA, they made only limited penetrations into the eastern sector and refrained from entering the plains of India, remaining within the territory claimed by China. On 21 November 1962,



Studying, 1944



Pequot War - regular and paramilitary forces unite in protracted war against the invader

Peking announced a unilateral cease-fire and began withdrawing its troops back to the original line of actual control which prevailed before they launched their attacks. (See map, figure 1).

1-13. During the Great Proletarian Cultural Revolution (1966-69) the PLA emerged as the dominant and most stable political power group in China. The PLA assumed a major role as leader and administrator in both party and governmental affairs, as well as in economic matters. This preeminence passed with the demise of Lin Biao in late 1971, although military influence in China's sociopolitical life remains extensive.

1-14. The signing of the 1960 Soviet-Mongolian Treaty of Friendship, Cooperation and Mutual Assistance, the extensive buildup of Soviet forces along the Sino-Soviet border, the enunciation of the Brezhnev Doctrine in 1968, coupled with border tensions which resulted in a series of clashes in the Amur-Ussuri border areas in 1969, brought home to the Chinese the real dangers of the Soviet threat. A concentrated effort followed to strengthen defenses at home together with a worldwide political campaign to counter Soviet influence abroad.

1-15. In January 1974 the PRC occupied the Crescent Group of the Paracel Islands following naval engagements between Chinese and South Vietnamese forces. This was only the second successful joint amphibious operation undertaken by the PLA, the first being against Nationalist-held I-Ching Shian Island off Chekiang Province in January 1955.

Doctrine

1-16. China's current official military doctrine is founded on the *Military Thoughts of Mao Tse-tung*. It is the product of nearly 50 years of military experience under the most varied conditions. It incorporates the concepts of numerous military strategists from Sun Tzu (*The Art of War*, circa 350 B.C.) through Napoleon and Clausewitz to those of modern times as well as the lessons learned from the peasant revolutions of 18th and 19th century China. In addition, Mao's military doctrine has assimilated some innovations derived from the conventional and nuclear technology of the present era.

1-17. The Peoples Republic of China maintains two major military doctrines.

- a. Peoples War
- b. Wars of National Liberation.

1-18. *Peoples War*. Peoples War is the doctrine for the defense of China against various types of warfare ranging from a surprise long-range nuclear strike combined with a massive ground invasion to a conventional ground attack with limited objectives. In peoples war the army and paramilitary forces, supported by the populace, would conduct a protracted war against an invader. Initially the Chinese main forces, using conventional tactics, would carry out a strategic withdrawal supported by guerrilla-type operations until the invading forces were overstretched and dispersed. When this occurred, overwhelming Chinese forces would be concentrated to annihilate the enemy forces in detail.

1-19. In recent years, there have been changes in Chinese training and organization which are indicative of a swing away from the guerrilla-type concept of peoples war towards improving their existing capability for

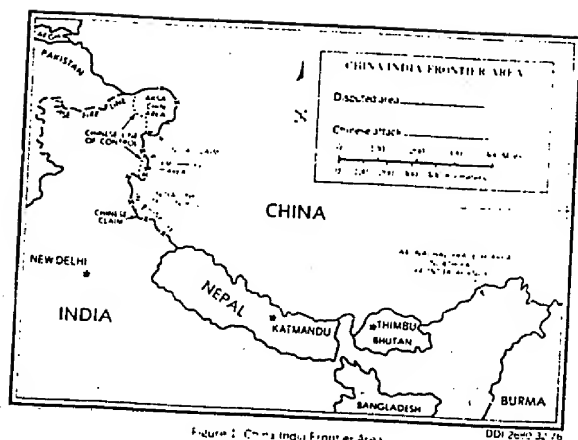
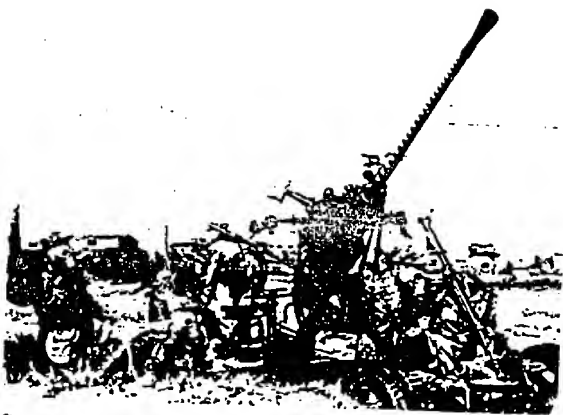


Figure 1. China-India Frontier Area

DDI 2000 32 76



Chinese chemical warfare doctrine is essentially defensive in nature. Here the crew of a 37 mm anti-aircraft gun type 55 wear standard protective equipment.

conventional operations. It appears that while the strategic doctrine for the defense of China remains based generally on peoples war, the concept of conventional positional-type defense, as recognized by the Western nations, has been accepted as essential for the protection of the political and industrialized areas. Nevertheless, this does not negate the central thesis which is *territory has no relevance. The enemy will be permitted to enter so that all forces, military and paramilitary, and the ordinary people can participate in the defense of their country and the ultimate destruction of the enemy.*

1-20. *Wars of National Liberation.* This is a revolutionary doctrine which is exported to indigenous, insurgent movements outside of China. It is essentially an offensive doctrine aimed at the seizure and maintenance of political power. In their support of "wars of national liberation," the Chinese do not necessarily promise or provide direct military aid. While political and ideological encouragement is given, the emphasis is on self-reliance as the only way to victory.

Nature of Combat

1-21. Chinese ground forces have the capability, although limited in some cases due to lack of technical knowledge and equipment, to carry out all forms of conventional operations from guerrilla-type warfare to combined operations using massed armor.

1-22. *Nuclear Operations.* Though there is no confirmed doctrine on nuclear warfare, the Chinese are well aware that the advent of nuclear weapons has generated many new features in warfare, and they appear to have the necessary training and knowledge to lessen the effects of nuclear weapons employed against them. Chinese nuclear weapons apparently are intended to serve as a deterrent to any would-be aggressor; that China has them, it is hoped, will keep any conflict at a conventional level. If faced with defeat, however, China possibly would decide to use its nuclear weapons.

1-23. *Chemical Operations.* There is no confirmed Chinese doctrine on the offensive use of chemical weapons. However, as China has the technical knowledge to develop modern chemical agents and to add to supplies of older toxic and non-toxic agents, an offensive capability undoubtedly exists. The current organization of antichemical warfare units and training against chemical attack conducted by both the military and the civilian populace would indicate the existence of a defensive doctrine against chemical warfare.

1-24. *Biological Operations.* Although little is known about PRC's stance on the art concerning biological warfare (BW), it is probable that its BW doctrine is similar to that of chemical warfare. There are reports of BW defensive preparations and of installations which are engaged in research and development of biological agents.

1-25. *Radobiological Operations.* Since nuclear reactors are available which can produce large quantities of radioactive waste, the PRC probably has contingency plans for spreading such waste along major avenues of approach into China to slow invading forces. However, there is little specific information on employment doctrine.

1-26 1-30. *References.*

SECTION II—GROUND FORCES' ORDER OF BATTLE

Chinese Ground Forces

1-31. The present structure of the ground forces reflects operational concepts adopted some years ago which envision large numbers of divisions being employed in conjunction with vast paramilitary forces in the defense of the PRC against an all-out attack. The PRCA is predominantly an infantry force; it does, however, possess a number of armored, artillery, antitank, antiaircraft and railway engineer divisions.

1-32. The ground forces consist of combat, combat support, and combat service support units in 250+ divisions and 200+ independent regiments of all types. The main combat power is found in the 130-140 regular main force divisions (118-125 infantry, 9-12 armor, 3 airborne-air transportable) and in the 70-odd smaller sized border defense, garrison and internal defense divisions. The 35+ artillery divisions (field artillery, antitank and antiaircraft) together with engineer, signal, and antichemical regiments and smaller units provide combat support. The combat service support railway engineer divisions, motor transport regiments and other logistical-type units balance out the ground forces.

Subordination to Military Regions

1-33. Territorially, the PRC is divided into 11 military regions (see map figure 2).

1-34. The military regions are responsible for the command and control operations of most ground forces in their geographical areas.

Strength and Mobilization

1-35. Despite the costly development of Chinese strategic attack and defense forces, the Chinese ground forces remain the largest element of the military establishment.

1-36. The Chinese ground forces consist of some 3,500,000 men. This total does not include the paramilitary forces.

1-37. While no specific plans are known, it appears that Chinese mobilization is based on the militia which has as one of its roles the provision of a reserve of trained manpower for the PRCA. The militia also maintains a pool of labor for logistic purposes.

Foreign Military Agreements

1-38. The 30-year Sino-Soviet Treaty of Friendship, Alliance and Mutual Assistance, signed in 1950, no longer appears to be in force. The Chinese have a mutual defense agreement with North Korea, signed in 1961, which provides for military aid to the Koreans.

1-39. The PRC has nonaggression pacts with Afghanistan, Burma and Cambodia.

¹ Navy and air force are discussed in chapters 6 and 7.

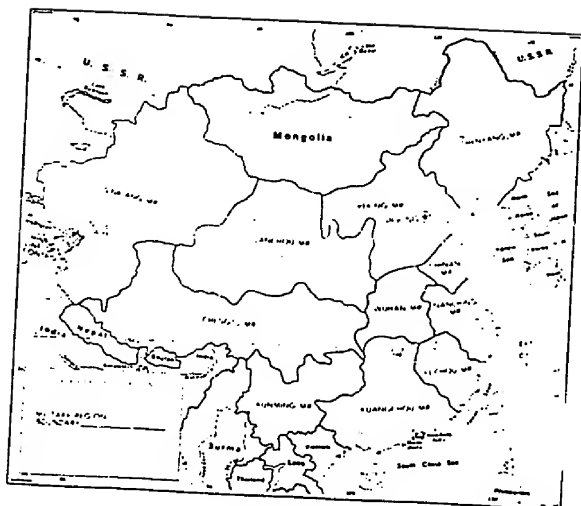


Figure 2 Military Regions

DDI 2680 32 16

1-40. The PRC has given military equipment and logistic support to an increasing number of countries, particularly in Africa. Major recipients of arms in recent years have been Albania, Pakistan and Tanzania.

1-41. Road construction and supporting troops, totaling 10,000 to 20,000 men, are deployed in Laos. In addition there is evidence of Chinese troops supporting the insurgency in Burma. There are also some Chinese railway engineers employed in Tanzania.

1-42-1-50. *Reserved.*

CHAPTER 2 ORGANIZATION AND EQUIPMENT

SECTION I—ORGANIZATION

The Chinese High Command

2-1. Command and control of the PLA is exercised by the Military Commission (MC) of the Chinese Communist Party. The Ministry of National Defense (MND) provides administrative support to the PLA. There are three General Departments.

- a. General Staff Department. The General Staff Department performs staff and operational functions for the PLA. This department in effect serves as the army general staff headquarters in addition to discharging staff duties for the navy and the air force.
- b. General Rear Services Department. The General Rear Services Department provides logistical support and services to the PLA as a whole.
- c. General Political Department. The General Political Department is the agency within the PLA responsible for matters relating to political affairs.

2-2. Specific operational functions are carried out, as directed by the General Staff Department, by the headquarters of the various arms and services. These include the navy, the air force, the armored force, the artillery force, the engineer corps, the railway engineer corps, the second artillery (strategic missile) corps, the capital construction engineer corps, and the antichemical warfare corps. There is no ground force or infantry headquarters as such.

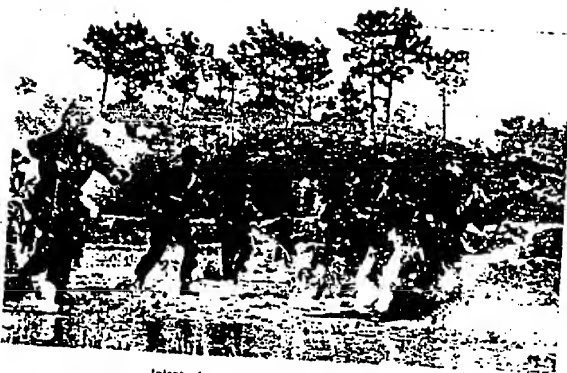
2-3. The military organization of the PRC is depicted in annex A.

Organization of a Front

2-4. In response to real or perceived threats to its national security or in the event of war, the PRC may form up forces into "fronts." A Chinese front would probably be organized along structural lines with the size and composition of forces, including paramilitary forces and their supporting elements, drawn up according to the military situation and the geographic area and military regions concerned.

2-5. A possible arrangement of Chinese fronts is shown below:

FRONT	MILITARY REGIONS	ORIENTATION
Northeastern (Shenyang) Front	Shenyang	USSR
Northern (Peking) Front	Peking, Lanchow	USSR, Mongolia
Western (Sinkiang) Front	Sinkiang	USSR, Mongolia
Southwestern Front	Chongtu	India
Southern Front	Kunming, Kiangchou	Indochina
Eastern (Fukien) Front	Nanching, Fuchien, Tsinan, Wuhan	Taiwan (Formosa)



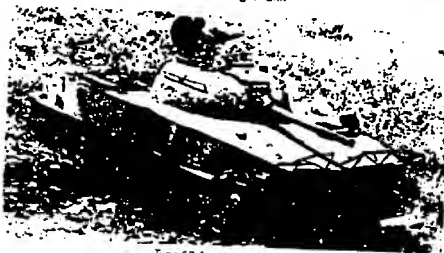
Infantry forces constitute the bulk of the PDCA



Type 59 Medium Tank



Type 62 Light Tank



Type 63 Amphibious Tank

Examples of tanks found in the PRCA inventory



Cavalry on patrol



UNCLAS

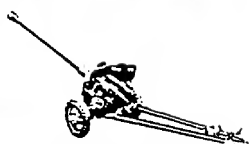
152 mm Gun Howitzer Type 56



107 mm Multiple Rocket Launcher



122 mm Field Gun Type 60



85 mm Antitank Gun Type 56



130 mm Field Gun Type 69

EXCLUDED FROM AUTOMATICALLY GENERATED DISSEM

Army

2-6. The largest current PRCA tactical formation is the army. The standard army has three infantry divisions, one artillery regiment, and other supporting troops totaling about 43,000 men. A Chinese army equates approximately to a U.S. corps.

2-7. The organizational structure of an army is depicted in annex B.

2-8. The regular ground forces of the PRCA are divided into two general categories: main forces and local forces.

Main Forces

2-9. Main forces are those regular army troops under the strategic command of the PLA Headquarters. Main force units are intended to be available whenever necessary for operations anywhere in China. They consist of combat units, combat support units, and combat service support units.

2-10. *Combat Units.* Combat units in the PRCA consist of infantry, airborne, (under PRCAF), armor, cavalry, border defense, internal defense, and garrison units.

2-11. Organizational structures of combat units are depicted as follows:

Infantry Division	Annex C
Infantry Regiment	Annex D
Tank/Assault Gun Regiment	Annex E
Infantry Battalion	Annex F
Airborne Division	Annex G
Armored Division	Annex H
Armored Regiment	Annex I
Mechanized Infantry Regiment	Annex J

2-12. *Cavalry.* Although the Chinese consider cavalry, i.e., horse cavalry, a combat arm, its employment is restricted to reconnaissance and screening missions over terrain that precludes the use of vehicles. In addition, cavalry units provide flank security during tactical operations as well as conduct border patrols.

2-13. *Combat Support Units.* Combat support units are of the following type: artillery, engineer, signal, and antichemical warfare.

2-14. *Artillery.* The term artillery, as used by the Chinese, includes field artillery (FA), antiaircraft artillery (AAA), and antitank artillery (AT), as well as rocket launchers (RL) and mortars.

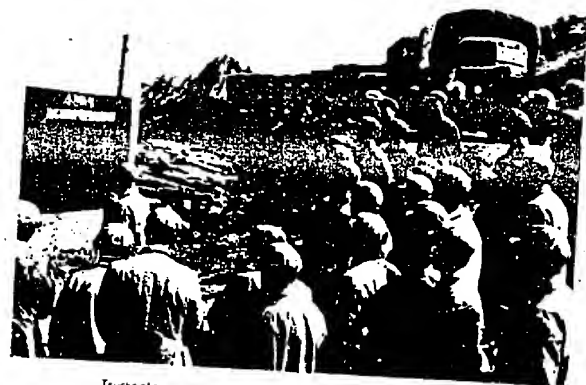
2-15. Organizational structures of artillery units are depicted as follows:

Artillery Division	Annex K
Antiaircraft Artillery Division	Annex L
Antitank Artillery Division	Annex M

2-16. *Engineer.* Engineer units in the PRCA are basically of two types: independent and organic. Independent engineer regiments are controlled at army



Artist's sketch of a KPA rearment member during heroic repair work during a storm.



Trucks of a motor transport unit halted along a road in a remote area



Railway engineer troops

and/or military region level. Engineer battalions are organic to armies and to both infantry and armored divisions. Companies are organic to airborne divisions and infantry regiments.

2-17. The organizational structure of an engineer regiment is depicted in annex N.

2-18. *Pontoon Bridge Regiment*. The pontoon bridge regiment is an independent engineer unit attached to an army or higher level unit which is engaged in river-crossing operations. It is one of several types of independent engineer units which perform specialized roles, such as tunneling, road building or mine warfare.

2-19. The organizational structure of a pontoon bridge regiment is depicted in annex O.

2-20. *Signal*. The organizational structure of a signal regiment is depicted in annex P.

2-21. *Antichemical Warfare*. Antichemical warfare units are organic to units from armies down to regiments. Some independent antichemical warfare units do exist. As their name implies, their primary orientation is defense against chemical, biological and radiological (CBR) attack. Their limited offensive capability includes procurement, storage, and distribution of CBR agents; the dissemination of smoke, riot control, incapacitating and lethal agents by various means; and the tactical use of flamethrowers.

2-22. *Combat Service Support Units*. Combat service support units in the PRC are of the following types: motor transport and railway engineer.

2-23. *Motor Transport*. Motor transport units in the PRC are subordinate to the Rear Services Department of army and division headquarters and the Rear Services Office at regiment. There are also several independent motor transport regiments.

2-24. The organizational structure of a motor transport regiment is depicted in annex Q.

2-25. *Railway Engineer*. Railway engineer units are organized into independent divisions and regiments for the purpose of railway construction and development of the national rail network. Because of their special skills, they are also employed in the construction of large projects, e.g., bridges and highways.

2-26. The organizational structure of a railway engineer division is depicted in annex R.

2-27. There is a Capital Construction Engineer Corps but little information is available on its organization.

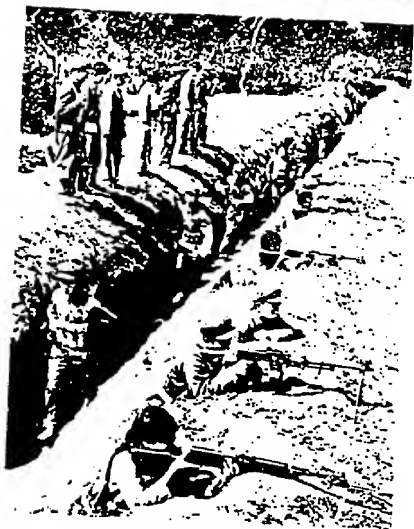
Local Forces

2-28. Local forces, also known as regional forces or local defense forces, are those regular troops of the PRC stationed in and assigned the task of defending particular locale or geographic area of China. They are responsible for the immediate defense of China's coastal areas and land frontiers and, in addition,



Members of a

conduct artillery training using a 130-mm field gun type 59



Peoples Militia training with PLA regular forces

share responsibility for the internal defense and security of the PRC. Local forces are normally under the command of the headquarters of the military region in which they are stationed.

2-29. There are three distinct types of local force units in the PRC: border defense (BD) units, internal defense (ID) units, and garrison units.

2-30. *Border Defense.* Border defense units, as the name implies, are those local forces stationed along and responsible for the defense of China's border areas. Essentially a lightly armed infantry force, border defense troops would provide early warning of border violations and constitute the first line of defense in the event of a border incursion. The largest organized unit of the border defense forces is the division. It is somewhat smaller than the standard Chinese infantry division.

2-31. The organizational structure of a border defense division is depicted in annex S.

2-32. *Internal Defense.* Internal defense units are lightly armed infantry forces. In peacetime their primary responsibility is the maintenance of law and order in the localities to which they are assigned. In the event of war they are believed to be capable of conducting limited defensive and guerrilla-type operations.

2-33. The organizational structure of an internal defense division is depicted in annex T.

2-34. *Garrison.* Garrison units are those local forces tasked with the defense of China's coastal area. They are deployed in static, reinforced, artillery-heavy positions along the coast and on many of the offshore islands. Tailored to suit the mission and the topography, they have few infantry troops and possess minimal mobility.

2-35. The organizational structure of a garrison division is depicted in annex U.

Paramilitary Forces

2-36. The PRC's principal paramilitary forces consist of the Peoples Militia and the Production and Construction Corps. While these forces are capable of providing significant guerrilla and/or logistic support to the PRC's regular armed forces in the defense of the Chinese mainland, neither of these groups could make a substantial contribution to the offensive ground capability of the regular forces.

2-37. *The Militia.* The Peoples Militia is a part-time, quasi-military organization which is controlled politically by the Chinese Communist Party but trained and directed militarily by the PLA. Traditionally, the militia has been an important component of Mao's thinking on people's war. In the event of war, the militia would use guerrilla-type tactics to harass the enemy, assist in the defense of urban centers, gather intelligence, help maintain production levels, provide direct logistical support, and provide manpower reserves for the regular forces. In time of peace, the militia serves to reinforce the production effort in agriculture and industry, and to increase security through support of regular forces, especially in border and coastal areas.



These women of the Peoples Militia are practice firing the type 69 grenade launcher, a modified copy of the Soviet RPG 7

2-38. The militia is found in both rural and urban areas and is usually divided into three categories: ordinary, basic, and armed. Most, approximately 60 million, of the militia force are in the ordinary category. These receive little if any military training and, as a category, are considered to have little military significance. The basic or "backbone" militia, approximately 15 million strong, is composed primarily of ex-servicemen and politically reliable elements in the 18-to-35 age group. Basic militiamen receive most of their military training from retired PLA officers, although once or twice a year they take part in training supervised by active duty PLA personnel. The approximately 5 million men and women in the armed militia are selected from the backbone militia and are considered the best trained. Their duties include mounting of armed security patrols and assisting in the training of basic and ordinary militiamen.

2-39. Overall responsibility for militia training rests with the provincial military district and is carried out through subordinate military subdistricts and the Peoples Armed Forces Departments (PAFD). Armament for the militia consists primarily of small arms but some units, especially in the urban areas, are equipped with antitank and antiaircraft artillery.

2-40. The probable militia organization is depicted in annex V.

2-41. *The Production and Construction Corps (PCC)*. The Production and Construction Corps is a full-time, quasi-military organization with its primary mission being the economic development of the more remote and unproductive areas of China. Its secondary mission is one of border defense and surveillance. Formerly supervised by the Ministry of State Farms and Land Reclamation, the PCC came under military control during the Cultural Revolution. Stimulated by the "down to the countryside movement" over the past several years, the PCC has undergone rapid expansion and is now estimated to have a strength of over 3 million. There are indications that some PCC units are again being civilianized and reverting to supervision by that Ministry.

2-42. The PCC is organized administratively into agricultural production and engineering divisions with subordinate regiments, battalions and companies found in most, if not all, military regions. Although probably less than 15 percent of its members are armed, the PCC does provide local border guard detachments and offers a good mobilization potential during a national emergency. Armament of the PCC includes light machineguns, mortars and rifles. The bulk of the PCC would require substantial training before its individuals or units could reasonably be considered combat effective in a conventional sense.

2-43. The organizational structure of the PCC in a military region is depicted in annex W.

2-44-2-50. *Reserve*.



Members of the Production and Construction Corps assist in the construction projects

SECTION II--EQUIPMENT

2-51. Chinese equipment, the bulk of which is of Soviet design and/or manufacture, is intended to satisfy operational concepts which differ from those of the West. Thus, no attempt at comparison will be made between Chinese equipment and that of the West; when deemed appropriate, a comparison between Chinese and Russian equipment of similar design will be made.

Operational Concept

2-52. As a result of the weaknesses exposed during the Korean War, the PRC decided to modernize its army generally along the lines of the Soviet Army, using Soviet TOE's and the combined-arms concept of armor and artillery-heavy mobile forces. Currently, however, the PRCA remains essentially an infantry force, and the tactics employed, dictated by the relative lack of armored vehicles and the geographical restraints in certain areas, are geared to exploit foot-soldier capabilities.

Operational Requirements

2-53. *Simplicity.* The Chinese require that their equipment be relatively simple to operate, maintain and repair. This requirement results partly from a scarcity of skilled, technical personnel and, in some instances, of spare parts. To overcome these deficiencies in the PLA's maintenance and repair capabilities, commanders often rely on the individual soldier's skill and ability to improvise with available material and resources. Local fabrication, cannibalization and patching are widely practiced in an effort to keep equipment, particularly vehicles, in service.

2-54. *Quantity.* Despite China's effort to modernize its forces, the amount of equipment produced domestically and imported from abroad is believed to be insufficient to equip all its units according to standard TOE's. There remains a variance among units particularly in the areas of heavy weapons and support equipment. In addition, some equipment and spare parts, especially armor and motor transport equipment, still are in short supply. However, it is assumed that the PLA is provided with sufficient arms and equipment to conduct large-scale, conventional warfare within its own borders or against neighboring small countries who are not supported by one of the superpowers. Its capability to conduct large-scale operations against the USSR and India is limited.

2-55. *Equipment Development.* In a world preoccupied with the development of more highly sophisticated and technical equipment and weapons, the Chinese are remodeling and reequipping their forces with sufficient equipment to enable them to confront any adversary on more equal technological terms. Besides producing equipment of Soviet and other foreign design, the Chinese have developed and produced various types of domestically designed equipment. Major weapons of Chinese design, for example, include an armored personnel carrier, the Type 62 light and Type 63 amphibious tanks and the F-9 fighter aircraft.

2-56. *Reequipment.* The size of the PLA, its dispersal throughout China, and the PLA's limited logistic capability require the Chinese to expend considerable time



Although basically an infantry force, the PRCA employs the combined arms concept of armor and artillery-heavy mobile forces. The spectacular limestone (karst) topography in the background is found in parts of Kwangsi and Kweichow Provinces and has inspired poets and painters down through the centuries.

and manpower in reequipping its armed forces. The Chinese, therefore, normally utilize their equipment for as long as it is operationally functional before replacement. In addition, recovery of equipment from the battlefield is stressed. These practices, however, do not negate China's continuing emphasis on standardizing, modernizing, and replacing obsolescent equipment when required.

Mobility

2-57. Due to the lack of land, sea and air transport capable of moving large numbers of forces, the PLA has comparatively little strategic mobility outside its own borders. But it is capable of decisive tactical mobility, especially over terrain which precludes or limits the use of mechanized vehicles. As the number of APC's and tanks increase, however, and trends toward mechanization are actualized, the PLA will be able to conduct warfare on a broader scale than at present. In a similar manner, an increased inventory of suitable air and water transport craft may result in an increased emphasis on air portability and amphibious operations, thus enhancing the PLA's overall mobility.

Details

2-58. Technical details, illustrations, and quantities of common Chinese ground forces equipment are given in annex X.

2-59 - 2-62. *Reserved.*

CHAPTER 3 THE BASIS OF CHINESE TACTICS

SECTION I—COMMAND AND CONTROL

Organization of Headquarters

3-1. The highest known current Chinese headquarters in the field is the army (equivalent to a U.S. Army Corps). However, it is probable that in wartime, for span-of-control purposes, these armies will be controlled and coordinated by a senior headquarters called the Army Group. Army Groups in turn would be controlled by the Front Armies.

3-2. The main sections of a Chinese army headquarters are:

a. *Operations Department.* The Operations Department is controlled by a chief of staff who is responsible for the operational direction of subordinate units in accordance with the commander's plan. This department includes subordinate sections responsible for operations and training, personnel, security, artillery, armor, engineers, chemical warfare, communications and reconnaissance.

b. *Political Department.* The Political Department deals with all political as well as security and propaganda matters. This department is also responsible for all aspects of the soldier's welfare. In addition, it is responsible, together with the Operations Department, for the interrogation of prisoners of war. All matters related to civilians, including the Youth Corps, are dealt with by this department.

c. *Rear Services Department.* The Rear Services Department is responsible for all aspects of logistic support. This department is divided into ordnance, quartermaster, finance and services sections and is supported by a medical and a transportation battalion.

d. *Party Committee.* See chapter 9.

3-3. The organization of the division headquarters is similar to that of the army headquarters but about one-third the size.

Formation Commanders

3-4. *Military Commander and Political Commissar.* At each level, the military commander and the political commissar share joint responsibility for combat operations, for all administration and for the general military and political training of all assigned troops.

3-5. *Army Group Commander.* The Army Group Commander is concerned with the conduct of the entire operation in which his group is involved and with the long-term strategic plan.

3-6. *Army Commander.* The Army Commander receives his tasks from the Army Group. His main concern is the conduct of operations in his area over a short-term period.

3-7. *Division Commander.* The Division Commander is concerned primarily with the day-to-day situation as it affects his division.

Location and Movement of Headquarters

3-8. Each headquarters is divided basically into a forward and a rear command post to insure continuous staff activity by the three staff departments.

3-9. The *forward command post* is organized into combat, signal and service¹ groups. The commander and political commissar and most of the Operations Department comprise the combat group of the forward command post.

3-10. The *rear command post* is commanded by the chief of the Rear Services Department and includes most of the staff of the Political and Rear Services Departments.

3-11. The commander will decide where the command posts are to be established and the axes on which they will move. The location of the headquarters will depend on the level of headquarters and the tactical situation. Army headquarters will generally be sited in depth in order to maintain control over its entire area. Division and regimental headquarters will be located well forward in order to maintain control of the battle.

Orders and Instructions

3-12. The means by which a commander controls his forces will inevitably depend to a certain degree on his own personality and methods. Normally detailed planning for tactical operations is carried out at army level. These plans direct the specific actions of units two or three echelons below the planning headquarters. Specific reactions to possible enemy actions are preplanned, and deviations from the plan may be made only within prescribed limits.

3-13. Planning during operations takes the form of continuous refinements of the tactical plans made before the initiation of the operation. This is done at planning conferences by the commander and his staff on a daily basis prior to each day's operation.

3-14. Following the daily staff planning conference, the army Operations Department prepares and disseminates combat orders and instructions to subordinate units. These instructions are limited to those which implement decisions that change the existing plan. They are dispatched several hours before the operation is to be resumed to afford subordinate commanders ample time to put them into effect.

3-15. Based on the army orders and instructions, the division commander formulates his general plan and issues detailed orders often including specific locations of key points within designated regiment and battalion areas.

3-16 - 3-22. *Reserved.*

¹ Includes administrative, mess and medical personnel from Rear Services Department.



The commander and political officer share joint responsibilities for all unit activities.



Forward command post of an infantry regiment. The 'bulletin board' contains posters on the use of the 14.5-mm antiaircraft machine gun. The use of the 14.5-mm antiaircraft machine gun to provide protection against air attack at forward command posts is a common practice.



Planning prior to a battle is both detailed and continuous. The use of a sand table is a common method of depicting the battlefield area.

SECTION II--TACTICAL PRINCIPLES

3-23. In chapter I it was explained that the PRC's strategic military doctrine is defensive in nature. There is no known offensive doctrine for the employment of the PRC outside Chinese borders. The overall objective in Chinese tactics is the destruction of enemy forces, not the capture and retention of terrain.

3-24. The Chinese are capable of undertaking any type of conventional operation. They are also capable of fighting in a nuclear environment and of employing their own limited nuclear weapons in a tactical role.

3-25. While conventional operations are constantly conditioned by the threat of the imminent use of nuclear weapons, Chinese tactics at the lower level vary little in either case. The major differences are that in conventional conditions unit frontages are narrower, objectives are closer, units fight for longer periods, and planned rates of movement are reduced.

General Principles

3-26. Mao Tse-tung's writings, particularly his military writings, form the basis for present-day Chinese military doctrine. Most of Mao's military writings are directed to the broad issue of the strategic defense with heavy emphasis on the political aspects. These writings, known as the *Military Thoughts of Mao Tse-tung*, are summarized below and are rigidly observed in both planning and execution.

The aim of war. War aims at destroying the effective strength of the enemy rather than at holding areas or cities.

Security. The conservation of the strength of one's own forces is essential to any military operation.

Flexibility. Withdraw before the enemy's advance; pursue the enemy's withdrawal; disperse or concentrate one's own forces swiftly on a wide and flexible battlefield.

Local superiority. Concentrate overwhelming strength against the enemy's weaker points; accept a decisive engagement only with two to six times the enemy's strength.

Offensive action. Attack is the vital method of destroying the enemy; surround the enemy and attack from at least two directions.

Single-pointed direction. Strategically, there must be only one main direction at a time; tactically, there must be a single objective.

Flexibility. Tactics must be ingenious and flexible, suited to the time, the place and the situation.

Surprise. One's own forces must be assembled in secrecy and must attack at the time and place which the enemy least expects.

Initiative. Always seize the initiative, preserve one's own freedom of action, and force the enemy to retreat.

Unity of command. Unified command is essential to success, particularly in the coordination of guerrilla and regular forces.

Preparation. Combat requires meticulous preparation to avoid entry into battle without assurance of success.

Confidence. Victory is determined by the confidence of commanders and troops in the inevitable triumph of their cause.

3-27. In addition to these principles, the Chinese place great emphasis on the maintenance of morale. Apart from the normal concerns for morale common to all armies, political officers are found at all levels down to and including companies. They are responsible for the morale, motivation and political education of all personnel. Chapter 9 deals with this subject in more detail.

3-28. It has already been stated that Chinese strategic doctrine is concerned with the defense of the mainland against various scales of warfare. This doctrine is based on the *peoples-war* concept in which the PRCA, in concert with the various paramilitary forces, would conduct a strategic withdrawal through successive defensive belts until the enemy is tactically and logistically overextended. By this method of trading space for time, the Chinese hope to concentrate sufficient forces to assume the offensive and destroy the enemy. However, it is believed that in the defense of certain key political and industrial areas the Chinese would probably defend in the more conventional positional-type defense.

3-29. It must be realized that the PRCA, being essentially an infantry force, has tailored its tactics to maximize these capabilities. The Chinese endeavor to get as close as possible to the enemy—"to embrace the enemy"—believing that in close combat they are superior to all other armies. They are also convinced, from their years of guerrilla warfare, that infiltration is most important and should be reflected in all their tactics. In addition, all movement and the majority of operations should occur at night.

3-30. Also, Chinese doctrine insists that offensive operations are the only way to victory and that the defense is assumed only in the face of a superior enemy force in order to gain time to concentrate forces before resuming the offensive. The Chinese believe that defensive operations must be active; they reject passive defense and consider it the quickest way to defeat and disaster. All operations are aimed at the destruction of the enemy forces rather than at the capture and retention of terrain.

Echelons

3-31. All units are normally divided into a first and second echelon. The first echelon comprises the leading assault or main defense elements required for the first phase of an operation. The second echelon comprises followup or depth elements required for a subsequent phase or phases.

Special Techniques

3-32. *Electronic Warfare.* The Chinese have a limited ability to employ electronic support measures (ESM) such as intercept and direction finding (IDF) and electronic countermeasures (ECM) such as jamming and deception. The Chinese have undoubtedly gained a considerable amount of practical experience in electronic warfare (EW) from the conflict in Indochina during the 1965-72 period.

3-33. *Chemical Warfare.* By Western and Soviet standards, the Chinese have comparatively limited capability to employ chemical agents. However, they have the ability to disseminate incapacitating and lethal agents by aircraft spray, bombs and shells. In addition, it may be assumed that the Chinese are developing modern agents to add to their stocks of older toxic and nontoxic agents.



2012 experience in Afghanistan warfare has made the PRCAs masters of the art of camouflage

3-34. The Chinese have the ability to apply normal tactical principles of firepower and maneuver in seeking to offset the likelihood and effects of a chemical strike upon them.

3-35. In addition to its lethality, chemical attack poses two further problems for friend and foe alike:

- a. The exhausting effect on those compelled to wear protective masks and full protective clothing for long periods.
- b. The considerable time necessary to decontaminate equipment before it can be used.

The Chinese are trained to minimize both of these problems.

3-36. Special chemical defense units, responsible primarily for decontamination, are organic to the army down to division level. The basic unit is the antichemical company composed of these platoons:

- a. Equipment Decontamination Platoon;
- b. Personnel Decontamination Platoon;
- c. Reconnaissance and Observation Platoon;
- d. Smoke Platoon; and
- e. Flamethrower Platoon.

3-37 3-45. *Reserved.*

SECTION III-RECONNAISSANCE

Those who know the enemy as well as they know themselves never suffer defeat. -Sun Tzu.

Reconnaissance Means

3-46. The PRCA's inferiority to Western and Soviet forces in certain technological support aspects such as air, mobility, fire control and surveillance equipment, as well as its concern for obtaining overwhelming local tactical superiority, leads to its insistence on detailed reconnaissance.

3-47. The following excerpt from PRCA regulations indicates the importance placed on reconnaissance by the Chinese:

Every commander must organize reconnaissance within his unit's zone of activities. He must not wait for instructions from his superior, nor must he seek his superior's decision as to whether he should organize reconnaissance. The reconnaissance he organizes must be carried out without cessation to comply with the combat mission through each successive period and phase of combat. Each new mission requires immediate organization of reconnaissance. The conduct of continuous reconnaissance during combat is vitally important.

3-48. The main Chinese means of reconnaissance are:

- a. *Air Reconnaissance.* This is one of the main sources of combat intelligence.



The reconnaissance element of the antichemical warfare company of the infantry division



A soldier and a Malayan conducting engineering work.

- b. *Patrols and Raids.* Units from army down to battalion have their own specially trained reconnaissance subunits.
- c. *Observation.* In both defensive and offensive operations, a system of fixed observation posts is established. At night, listening posts are set up to augment other early warning security measures.
- d. *Motorized Reconnaissance.* Special units at army level and in infantry and armored divisions provide limited motorized reconnaissance.
- e. *Artillery Observation,* including field radars.
- f. *Electronic Intercept and Direction Finding.* It is presumed that the Chinese have a limited capability in this area, but the degree of development is not known.

Air Reconnaissance

- 3-49. *Method.* Reconnaissance missions will probably be effected at altitudes between 300 and 1,000 feet at speeds between 400 and 500 knots. The pilot can report targets direct by radio or relay his reports.
- 3-50. Modern Chinese aircraft are capable of photographic reconnaissance in addition to the normal method of visual reconnaissance by the pilot.
- 3-51. At night, aircraft would operate at a higher altitude and at a reduced intensity.
- 3-52. Search and destroy operations may be carried out by pairs of aircraft on reconnaissance missions.
- 3-53. *Reaction Time.*

- a. *Targets Found by Visual Reconnaissance.*

- (1) Targets engaged by ground attack aircraft: after about 60 minutes from first target.
- (2) Targets engaged by conventional artillery: 30 minutes from first report.
- (3) The Chinese are not known to have a tactical nuclear missile; however, they may be prepared to use SRBM's, MRBM's or IRBM's in a theater tactical role at predetermined targets on the main avenues of approach within the PRC. The reaction time for this employment is not known.

- b. *Targets Found by Photo Reconnaissance.* Photo processing and interpretation is probably not up to current Western and Soviet practice and reaction time may be delayed.

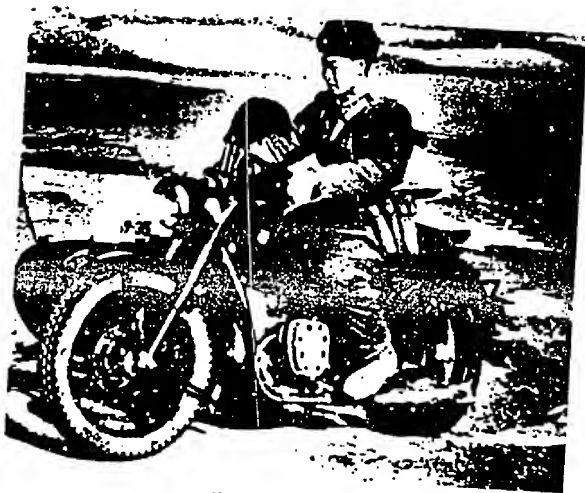
- 3-54. *Scale of Effort.* Due to the limited number of fighter and medium-bomber reconnaissance aircraft, it is not possible to estimate a daily sortie rate. However, the tactical air forces are thought to work in direct support of the ground forces.

Patrols and Raids

- 3-55. In all phases of war the Chinese patrol energetically and skillfully. These patrols are always specially equipped for their tasks and a high proportion of automatic weapons are carried.
- 3-56. In addition, the Chinese have no scruples about employing soldiers in civilian clothes or enemy uniforms for reconnaissance purposes.



The Chinese are well trained in patrolling and are expected to carry out their tasks with skill and energy



Motorized Reconnaissance

3-57. Reconnaissance activities by day or night are often increased prior to an offensive. Patrolling is directed to every part of the front in order to discover avenues of approach, enemy positions (in particular, enemy headquarters), and any weak points. These activities may include:

- a. Feints to induce the enemy to disclose his positions.
- b. Raids in strength to test enemy reactions and to secure prisoners.
- c. Strong, limited attacks, particularly when the enemy's strength is undetermined.

Motorized Reconnaissance

3-58. *Scale and Employment.* The army, infantry, and armored divisions have special reconnaissance units equipped with light amphibious tanks, armored cars, and motorcycles with sidecars which may operate from 8 to 20 kilometers ahead of the main body. Local civilian transport may be impressed for use in reconnaissance should it be necessary.

3-59. There are also special reconnaissance elements from engineer, artillery, and chemical units.

Artillery Observation

3-60. Army and division artillery observation units contain:

- a. Surveillance and weapon-locating radars;
- b. Radar intercept, direction-finding sets;
- c. Sound-ranging devices; and
- d. Flash-spotting observation posts.

3-61. Figure 3 summarizes the ranges at which the various reconnaissance elements operate.

3-62-3-70. *Reserved.*

SECTION IV-FIREPOWER

Nuclear Fire Support

3-71. There is no confirmed doctrine for nuclear fire support.

3-72. Available evidence indicates that China's nuclear weapons will serve as a deterrent in the hope of confining any further war within limits bearable for the PRC. China professes that it will never be the first to use nuclear weapons. In this respect, as the Chinese do not possess tactical nuclear weapons at this time, they may use portions of their strategic missile and bombs in support of their own ground forces. Nuclear mines (atomic demolitions or ADM's) may also be used.

3-73. Chinese planning for the employment of nuclear strikes is not known, but it is presumed that contingency plans for their use in the defense of the PRC have been drawn up by the General Staff Department in consultation with army or higher headquarters.

3-74. *Scale of Warheads.* Not known.

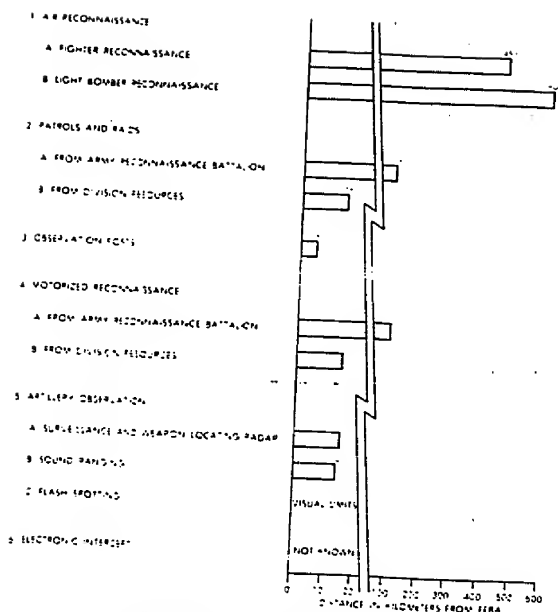
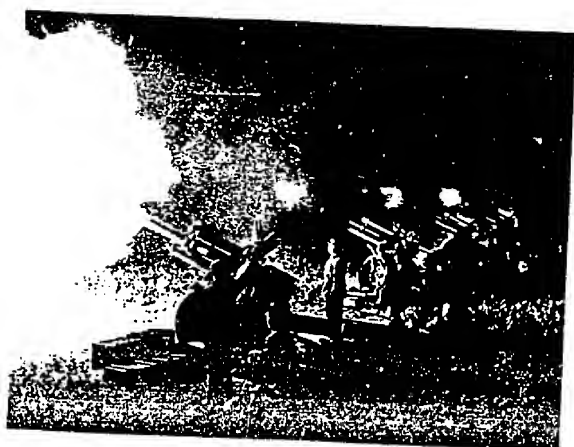


Figure 3. Extent of Various Chinese Reconnaissance Means



122 - - on four tubes in a right for a overage

3-75. *Nuclear Targets.* The following are held to be some of the more likely nuclear targets:

- a. Enemy nuclear delivery means.
- b. Headquarters.
- c. Troop concentrations and reserves.
- d. Major avenues of approach.
- e. Communications centers.
- f. Population centers.
- g. Supply areas.

3-76. *Method of Use.* Not known.

3-77. Nuclear missiles are discussed in chapter 8.

Chemical Fire Support

3-78. The Chinese possess a variety of means for chemical warhead delivery such as surface-to-surface missiles, multibarrel rocket launchers and guns of or above 122-millimeter caliber. It may therefore be presumed that chemical warheads are found in their inventory. Information on the employment of chemical weapons, however, is limited.

3-79. Chemical weapons are particularly suitable for targets where casualties to personnel are required but where damage to the terrain should be minimized. Likely targets and the type of chemical agents are:

- a. *Nonpersistent agents.*
 - (1) Defiles, river crossings and communication centers on main axes of attack.
 - (2) Airfields and potential dropping or loading zones.
 - (3) Enemy positions close to own troops.
- b. *Persistent agents.*
 - (1) To restrict the use of ground.
 - (2) Airfields which are not in use.
 - (3) Ports, bases and other rear area installations.
- c. *Semi-persistent or persistent agents.*
 - (1) Nuclear weapon systems and artillery.
 - (2) Well dug-in enemy positions.
 - (3) Headquarters, reserves and assembly areas.

Conventional Surface-to-Surface Artillery

3-80. *Allocation.*

- a. In the event of hostilities, it is presumed that independent artillery divisions will normally be allocated to armies by Army Group headquarters.
- b. Army normally allocates its own and allotted conventional artillery to first echelon divisions, although an army may on occasion retain some artillery for its own requirements.
- c. A division in turn will allocate some of its organic and allotted artillery to its regiments.

- d. A regiment normally places the artillery received from division in direct support of its first echelon battalions.
- e. Second echelon divisions, regiments and battalions may not be allotted direct artillery support until they are committed.

3-81. *Control.*

- a. Formal fire plans are detailed and meticulous, and the control of guns is retained at the highest practical headquarters.
- b. On completion of a formal fire plan (some firings may last some 60 minutes), the control of artillery units is decentralized to divisions, regiments and battalions at whatever scale is required for the operation.
- c. Artillery can be organized into temporary tactical groups to provide the fire support required by the tactical situation. These groups, which are made up of organic and nondivisional artillery, are of the following types:
 - (1) *Support groups* consisting of artillery placed in direct support of infantry regiments. Weapons used normally exceed 122 millimeters in caliber.
 - (2) *Long-range groups* composed of the heavier artillery. Some groups may be allotted in direct support of divisions while others will remain under army control.
 - (3) *Destruction groups* composed of heavy and high-powered artillery formed for the destruction of obstacles and defenses.
- d. While artillery communications are adequate, a radio link is seldom established with the supporting unit and the Chinese depend instead on the collocation of the artillery commander with the supported commander.
- e. Forward observers are deployed well forward with the front line battalions.

3-82. *Deployment.* Chinese field and antitank guns, towed by wheeled and tracked prime movers, have a good long-range performance. The gun and howitzer are also considered to be principal antitank weapons. If the tank threat warrants it, organic artillery will at times be employed in the antitank role. At least 5 percent of all ammunition holdings are antitank. High velocity guns are equipped with armor-piercing ammunition; lower velocity weapons, with hollow charge.

Tank and Antitank Fire

3-83. *Indirect Fire from Tanks.* It is common Chinese practice to use indirect tank fire to augment the fire plan in offensive or defensive operations.

3-84. *Antitank Fire Plan.* Antitank fire planning is detailed and is coordinated at the highest possible level. Antitank weapons are held by infantry regiments and divisions; armored divisions and independent armored regiments rely on their tanks for antitank fire. Flanks and tank approaches are covered by mutually supporting antitank weapons sited in depth.

3-85. *Antitank Reserves.* As the Chinese have incorporated a considerable amount of Soviet doctrine into their tactics, it may be assumed that regimental and divisional antitank reserves are formed in both the attack and the defense.



Chinese troops employing the 75 mm recoilless rifle type 56 (above) and the 40 mm antitank grenade launcher type 69



These reserves are probably made up of both guns and tanks and will generally include an engineer subunit to lay minefields in threatened areas. The role of an antitank reserve is to deploy rapidly to meet tank threats.

3-86. *Equipment.* In addition to the battalion weapons (40-mm antitank grenade launchers, 57/75-mm recoilless rifles), regiments have a 75/82-mm recoilless rifle company, and divisions have a 107-mm rocket launcher company. The Chinese are not known at present to have antitank guided weapons (ATGW).

Offensive Air Support

3-87. Chinese tactical air support to ground forces, compared with Western and Soviet armies, is limited in quantity and quality but has received increased emphasis in maneuvers during recent years.

3-88. *Ground Attack Tactics.* At present, Chinese ground attack pilots must see their targets visually; therefore, they require at least 2 nautical miles' visibility for the mission to be undertaken.

3-89. Ground attack aircraft normally operate in pairs or in multiples of pairs. Attacks can be made by nuclear and conventional bombs, napalm, cannon, rockets or chemical warheads. They approach the target at high, subsonic speeds. At a readily recognized identification point, the aircraft will normally pull-up to allow the pilot to identify the target. The aircraft will then execute a dive, which can be steep, medium or shallow, to weapon release.

3-90. Although a pull-up at a recognized point is normal procedure, a rocket attack at low level (150 meters) with no pull-up cannot be discounted. These methods could well be adopted if the target is large or conspicuous enough to be easily identified.

3-91. Chinese nuclear weapons may be delivered by medium-range bombers, probably in straight flight and from a medium altitude.

3-92. If more than one pair of aircraft are attacking a target and if the size of the target allows, the various pairs are likely to attack from several directions. This forces air defense weapons to change azimuth and elevation constantly.

3-93. At night, attacks could be made with the assistance of flares dropped by supporting aircraft. Approaches to the target and weapon release would then be made at much higher altitude than during daylight.

3-94. There is insufficient information to estimate the number of daily ground attack sorties.

3-95. *Control.* It is assumed that the Army Group Headquarters would normally retain control of tactical air support aircraft, allocating sorties to armies as necessary. Air liaison officers and forward air controllers are deployed with divisions to coordinate the air support of ground operations.

3-96. *Targets.* The majority of offensive air support is assigned to targets of opportunity; in particular, enemy nuclear delivery means.

Air Defense

3-97. The basis of the air defense is to provide:

- a. Cover for the Army Group through antiaircraft artillery divisions, surface-to-air missile divisions, and organic army antiaircraft resources in coordination with air defense fighters of the PRCFA.
- b. Point protection by division and regiment air defense weapons.
- c. A competent and efficient target acquisition and warning system which provides air defense units with targets and combat units with warnings of attack. The system, however, consists primarily of older Soviet radars which would have a limited effectiveness against a modern air force.

3-98. Targets will be protected in the following priorities:

- a. Nuclear delivery means.
- b. Headquarters.
- c. Assembly areas.

3-99-3-104. *Reserved.*

SECTION V--MANEUVER

3-105. The PRCFA is predominantly an infantry army and its tactics of necessity are designed to exploit the capabilities of the infantry. This factor, together with its historic guerrilla warfare background, has made it capable of great tactical mobility, especially in terrain which is difficult for highly mechanized forces. Movement on foot is fast, and a rate of 40 kilometers a day can be maintained by large forces over great distances in open terrain when unopposed.

3-106. The Chinese tactics, as in other armies, are based on fire and movement. In addition, the Chinese endeavor to retain freedom of maneuver sufficient to envelop enemy positions as well as to attack them frontally. However, it is most unlikely that "human wave tactics" of the Korean War pattern will be employed without considerable refinement.

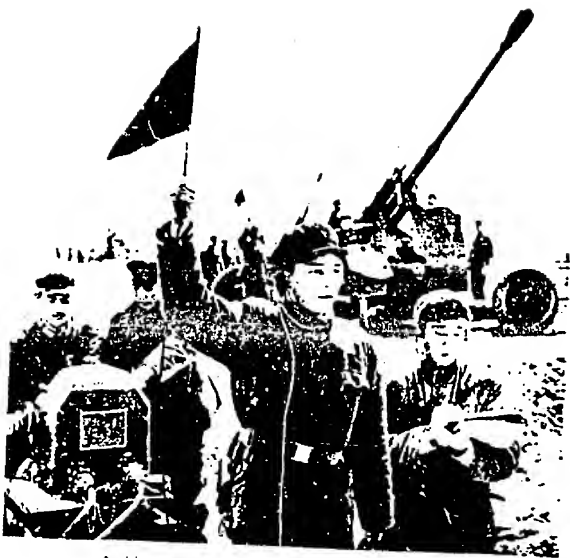
3-107. The Chinese emphasize depth in the attack and are quick to take advantage of a penetration of their opponent's forward defenses and to develop it by seizing objectives behind his main position.

3-108. Long experience in guerrilla warfare has made the Chinese masters of the art of infiltration. Teaching emphasizes the importance of substantial forces infiltrating the opponent's flanks and rear before an assault. These forces establish themselves astride their opponent's supply routes to prevent reinforcement or withdrawal of the defending force and to prevent employment of reserves.

In the Attack

3-109. *Objective.* Units are given the following objectives:

- a. An initial objective, which must be taken by the first echelon.
- b. A subsequent objective, which may require commitment of the second echelon and which normally coincides with the initial objective of the next higher headquarters.



Air defense exercise employing a 100-mm antiaircraft gun type 59



Infantry in the assault



Night frequency

3-110. Commanders choose tactical objectives which will help destroy the opposing forces. These objectives will normally be enemy positions, particularly on vital ground, whose seizure would facilitate future operations or offer the greatest opportunity to destroy the defenders.

3-111. *Rate of Advance.* Despite increases of motorized transport throughout the PRCA, Chinese infantry moves primarily on foot; other elements move by organic transport regiments. The rate of advance on foot can be surprisingly rapid: about 5 kilometers an hour or 40 kilometers a day. In addition, forced marches will be carried out if the Chinese think they can thereby outflank the enemy and either cut his lines of communication or attack him from the flank or rear. To achieve this, the Chinese do very detailed planning with emphasis on:

- a. Rapid and bold offensive action.
- b. Quick attacks, accepting open flanks.
- c. Maintaining the momentum of the advance by night and day.
- d. Traffic discipline and strict control of movement.
- e. Organization of forces to permit rapid deployment and commitment.

3-112. *Night Operations.* PRCA doctrine stresses the importance of night operations. The Chinese are expert in both combat and administrative operations under cover of darkness. In fact, virtually all movement and the majority of operations occur at night. They do this to avoid sustaining heavy casualties from enemy air action and to achieve tactical surprise. By marching only at night and concealing all troops and equipment during the day, they have demonstrated the capability to shift large forces without detection. During the later stages of the Korean War and in the Sino-Indian campaign of 1962, night movement became the general rule.

In the Defense

3-113. In Chinese tactical doctrine all defensive operations are planned and conducted with the aim of changing over to the offensive as quickly as possible. The defense is undertaken as an interim measure during which preparations are made and more favorable conditions are developed for resuming the offensive.

3-114. The Chinese employ two basic forms of defense. First, there is the mobile defense, developed from their long experience in guerrilla warfare. It is a hit-and-run type of defense based on a war of movement and conducted as a series of defensive actions followed by withdrawals with the aim of inflicting casualties on the enemy without undue loss to themselves.

3-115. The second type is the positional defense. It is organized in great depth and designed to deny vital areas to the enemy or to halt his attack and inflict significant losses on his men and material. Forward units engage the enemy decisively and hold at all costs with no thought of withdrawal to successive defensive positions.

Movements

3-116. The Chinese employ two categories of march: advance and withdrawal.

3-117. *The advance march* is a tactical movement made to engage the enemy, to shift troops from one part of the line to another, and to exploit and pursue the enemy.

3-118. *Withdrawal marches* are conducted to avoid combat rather than fighting a delaying operation, and are made by breaking contact and moving quickly to the rear.

3-119. There are two methods of movement:

a. *March Efficiency Method.* When contact is not anticipated and when terrain or conditions of poor visibility afford protection against enemy air attack, units are allowed to move at their own speed to arrive at the prescribed place and time. Minimal security measures, consistent with safety, are taken during movement, and commanders seek to conserve troop energy.

b. *Combat Readiness Method.* When contact is anticipated, commanders insure the combat readiness of their forces by:

(1) Organizing combined arms groups capable of quick deployment and independent action.

(2) Designating tactical bounds and boundaries to suit the terrain and general scheme of deployment. Normally, columns on secondary axes are given broader frontages.

(3) Emphasizing combat security.

3-120. *Speed.* Normal speeds in kilometers per hour are:

Trafficability	Condition	Average Speed	
		Motor March	Foot March
Good	Day (dry)	32 km/hr	5.0 km/hr
Good	Night (lights; dry)	24 km/hr	3.0 km/hr
Good	Night (no lights; dry)	16 km/hr	3.0 km/hr
Fair	Day (dry)	24 km/hr	3.5 km/hr
Fair	Night (lights; dry)	24 km/hr	2.5 km/hr

3-121. *Halts.* Rest areas along the route of march are located in sheltered areas which afford maximum cover and concealment. Normal tactical march procedure calls for 10-minute halts each hour and a 20-minute rest period every 4 hours.

3-122. Due to the lack of air cover, the Chinese restrict vehicular movement to periods of darkness or poor visibility. Vehicles move singly or in convoys of up to 25 vehicles. Halts occur normally as follows:

a. Short halt of 20 minutes after every 2 or 3 hours.

b. Long halts of 2 to 4 hours after 12 hours in a move taking more than 24 hours.

3-123. *Control.* Commanders control tactical marches by timing the movement and activity of subordinate units, by personally supervising march conduct, and by making effective use of signal communications. To assist the commander, all units have personnel trained in traffic control duties.

3-124. The Movement Plan will normally include:

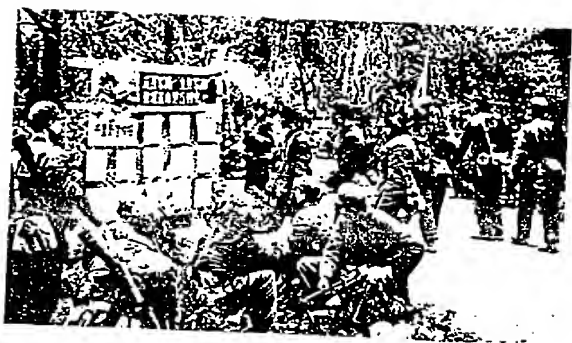
a. Detailed timings and march objectives.

b. Phase lines and routes for march columns.

c. Detailed signal instructions including audible or visual means.



PRCA troops on the march in the desert



Soldiers at rest area along the route of march

3-125. *Route Opening.* Engineer reconnaissance parties and specialized equipment move well forward on every route. Dozer blades may also be fitted to some tanks and other nonengineer prime movers.

Obstacle Crossing

3-126. Both infantry and engineers are trained in improvised methods of obstacle crossing. The Chinese make the most of locally available material. A common technique is the use of submerged bridges or fords built below water level at a safe vehicle wading depth. They are difficult to detect even by close observation. The Chinese capability for crossing obstacles is described under the phase of war in which it is generally employed. Minefield breaching is described in paragraphs 4-35, 4-37; water and gap crossing is described in paragraph 4-71 ff.

3-127-3-134. *Reserved.*

CHAPTER 4 PHASES OF WAR AND SPECIALIZED WARFARE

SECTION I—OFFENSIVE OPERATIONS

Doctrine

- 4-1. The fundamental Chinese military doctrine is that victory can be won only by attacking. The purpose of offensive operations is to destroy the opposing forces rather than to capture or retain ground. This doctrine applies at all levels.
- 4-2. Moreover, the Chinese believe that victory can be achieved only by striking in selected areas with overwhelming numerical superiority. A ratio of 3:1 is considered the minimum, but much higher ratios of even 10:1 are preferred. This concentration of force occurs only in the area of the proposed assault and the Chinese are quite prepared to weaken other sectors to achieve this imbalance.

Application

- 4-3. *Basic Tactical Maneuvers.* The Chinese Army, as with all conventional armies, employs two distinct offensive tactical maneuvers:

- a. Envelopment in its various forms.
- b. Frontal attack.

- 4-4. *Envelopment.* This maneuver can take either of the following forms:

- a. *Double Envelopment.* Elements of the attacking force engage the enemy in the main defensive position to neutralize their small-arms fire and force them to disclose their mortar and artillery defensive fire tasks. The remainder of the assaulting force divides and simultaneously attacks around both flanks to cut off the enemy force and thereby prevent reinforcement or withdrawal. The encircled force is then destroyed.
- b. *Simple Envelopment.* The main assault is on one flank only; otherwise, the aim and the method of execution are the same as for the double envelopment.

- 4-5. *Frontal Attack.* The frontal attack is employed only when reconnaissance has failed to find a gap in the enemy defenses and maneuvering along the FEBA has failed to develop one. The assault is launched on a narrow front with the aim of breaking through the enemy FEBA, thereby permitting successive assault waves to pass through and fan out within and behind the defensive positions.

- 4-6. A frontal attack combined with an encircling movement is called a penetration-envelopment maneuver. See Figure 4.

- 4-7. *Tactical Techniques.* The Chinese use simple catch phrases to describe various tactical actions. Examples are "one point, two sides" and "divide and destroy."

¹ These two Lin Biao-named tactics were criticized during the campaign against Lin, but it is believed that the tactics themselves are still valid.

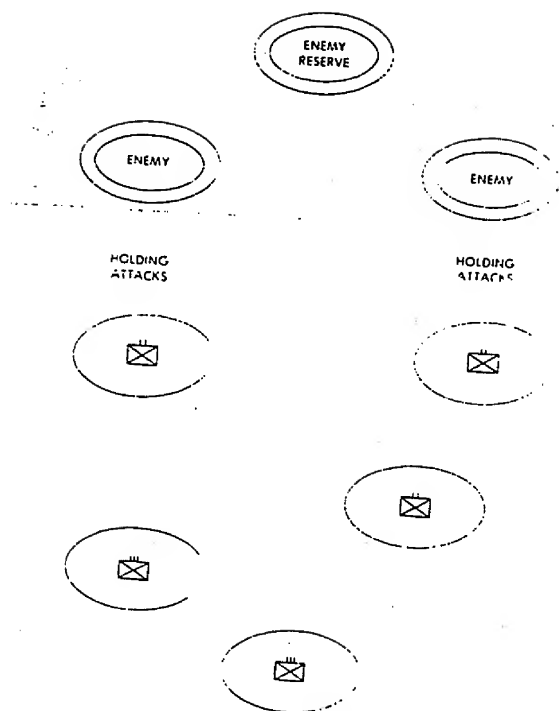


Figure 4. Diagram illustrating the formation.

- a. *One point, two sides* is a variant of the envelopment in which the enemy's weak spot is attacked simultaneously with feints and enveloping movements. "One point" means the concentration of overwhelmingly superior strength and attack at a selected weak point. "Two sides" means the launching of an attack where two or more supporting attacks are necessary to insure that the enemy can be enveloped and annihilated. This does not mean that the attack is limited to only two sides. When strength permits, attacks on three or more sides may be launched. See figure 5.
- b. *Divide and destroy* is a principle applicable at all levels and is an alternative to the "one point, two sides" tactic. As the words imply, the Chinese attempt to penetrate the enemy position and to split the defenders successively into smaller groups; then they assault to annihilate by overwhelming forces. See figure 6.

Basic Principles

4-8. The Chinese, in all their tactics, make the maximum feasible use of the following basic principles.

- a. *Speed*. In the offensive, the continuous development of the attack at high speed is mandatory. The division usually is assigned an initial, an intermediate, and a subsequent mission, all to be accomplished within the first 24 hours of the operation. Successive echelons follow up and exploit any successes, thereby maintaining the initiative and momentum of the attack.
- b. *Secrecy*. Secrecy is maintained in the preparation for the attack and every effort is made to surprise the enemy as to the time and place of the attack.
- c. *Infiltration*. Long experience in guerrilla warfare has made the Chinese masters of the art of infiltration. Their teaching emphasizes the importance of infiltrating substantial forces around the enemy's flanks and rear prior to an assault. These forces endeavor to prevent reinforcements to or withdrawal of the defending forces prior to their destruction by the main attack.
- d. *Night Operations*. Virtually all movement and the majority of operations occur at night.

4-9. *Attack Phases*. All Chinese offensive actions are divided into four basic phases (see figure 7).

- a. *The Approach March*. The move from the assembly area to the attack positions.
- b. *The Attack*. The move from the attack positions to the assault positions.
- c. *The Assault*. The move from the assault position until the initial objectives have been secured.
- d. *Combat in Depth*. This phase begins as soon as the initial objectives are secure. It may be started by the first (or assault) echelons when it is still an effective force or by the second (or support) echelon.

ATTACK

ATTACK

OBJECTIVE

ATTACK

ATTACK

Figure 5 One Point Tag Sides

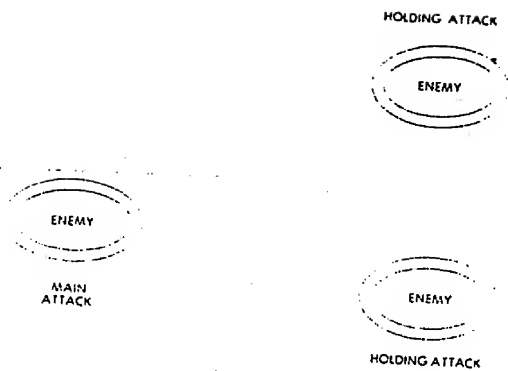
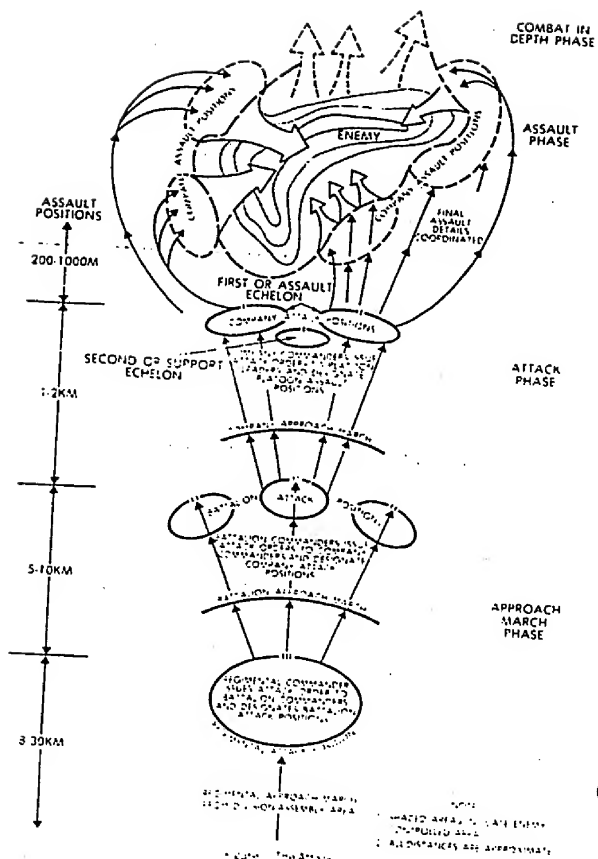


Figure 6 O wide unit Destroy



4-10. *Echelons.* One or more of the following echelons are employed to carry out and add weight and depth to the attack:

- a. First or assault.
- b. Second or support.
- c. Third (usually only when attack is on narrow front).

4-11. *Reserve.* The Chinese do not categorize the reserve as an echelon in the offense. The second or support echelon is tasked to follow and support the assault echelon in the attack and is therefore committed. This echelon is not a proper reserve although it may be assigned missions such as repelling counterattacks which are normally given to a reserve. The reserve proper varies in strength according to each combat situation. Normally, the reserve is an infantry-heavy, motorized if possible, combined-arms force.

4-12. A guide to the size of the reserve is as follows:

- Division - Battalion in reserve
- Regiment - Company in reserve
- Battalion)
- Company) Normally do not have a reserve
- Platoon)

FRONT,² ARMY GROUP, AND ARMY OFFENSIVE

4-13. The aim of front, army group or army offensive is to break through the various echelons of the enemy's main defenses. The offensive will employ one or more forms of the envelopment to isolate and destroy the main body of the enemy and, whenever possible, engage his reserve. If the situation precludes envelopment, multiple penetrations of the defensive position will be made, followed by envelopment. At army level, the Chinese are capable of reaching objectives as far as 20 to 25 kilometers behind the enemy FFBV in a single night. Attacks at these levels are normally carried out in three echelons consisting of forces of roughly equal strength: the echelons are assigned attack, support and reserve roles, respectively. However, in practice an army may be committed in its entirety, and backed by reserve armies available to the higher headquarters.

4-14. The size of the sector and the depth of objectives allocated to a front or army group will vary considerably depending upon its strength, role, the terrain and whether or not the campaign is nuclear.

² A front is a geographical entity which comprises an indeterminate number of army groups or armies depending on the assigned mission.

4-15. Typical yardsticks for the army and subordinate units in offensive operations are as shown in the following table:

Frontages and Depths in Offensive Nonnuclear Operations ¹						
	Army ²	Division	Regiment	Battalion	Company	Platoon
Frontages						
Sector	16-40 km	8-12 km	3-4 km	1-2 km	300-500 m	100-150 m
Attack Frontage	4-8 km	2-4 km	1-2 km	500-750 m	250-350 m	100-150 m
Depth of Objective						
Initial	10-15 km	3-5 km	2-3 km	1-2 km	-	-
Subsequent	30 km	10-15 km	2-5 km	2-3 km	-	-
Depth of Operations	35-40 km	20-25 km	-	-	-	-
Rear Boundaries From FFA	30 km	17 km	6 km	3 km	-	-

¹In nuclear operations all distances would be modified.

²An Army Group is thought to consist of three armies.

4-16. *Airborne Operations.* A front may be allocated an airborne division although its operations will normally be of regimental or battalion group size. Airborne operations are described in section V of this chapter 4.

4-17. The Chinese have conducted a few small exercises employing helicopters in an assault landing role.

DIVISIONS, REGIMENTS AND BATTALIONS

The Advance

4-18. A division in a movement to contact (see figure 8) will deploy in the following components and will be encountered by an enemy in this order:

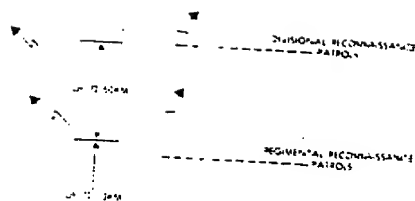
- Motorized reconnaissance elements.
- The advance guard consisting of:
 - Point,
 - Advance party, and
 - Advance guard proper.
- The main body.

Flank and rear protection is discussed in paragraph 4-22.

4-19. Motorized reconnaissance elements will be employed on the divisional routes from the division and regiment reconnaissance company and platoon, respectively. (See paragraphs 3-58 and 3-59.)

4-20. The advance guard or first echelon of the division is normally a combined-arms force whose size and composition will vary. The following may be used as a guide.

- When a division moves in a column, the advance guard is based on an infantry regiment.



NOTE
The above information was obtained from the files of the
U.S. Customs Service - New York City Office.



A 57 mm anti-aircraft gun Type 55

b. When a division moves in parallel columns, each ~~echelon~~ regiment is responsible for its own security. In such a situation, the division advance guard is, in effect, a reinforced infantry battalion along each route.

4-21. *Main Body.* The main body or second echelon will advance with the headquarters, artillery and air defense elements well forward.

4-22. *Flank and Rear Guards.* These are established by the division as a whole, and by each march echelon on a small scale. They are composed of all arms and their size and composition will depend on the possible enemy threat. They are normally mounted and move along parallel routes, some 10 kilometers from the main body, to give early warning of enemy intentions, to prevent direct fire on the main force, and to give the commander freedom of movement. These guards, like the advance guard, deploy with

- a. A point.
- b. A flank or rear party, and
- c. A flank or rear guard proper.

4-23. *Antitank Defense.* The Chinese disperse their organic antitank resources, including artillery, throughout the various march echelons. Armor and stall an enemy armored attack until other elements of the division are able to mount a counterattack. In addition, armor and artillery are allocated to the advance guard whenever possible and usually travel well forward of the main body as well. Each echelon commander is responsible for his own antitank defense within the overall force commander's plan.

4-24. *Antiaircraft Defense.* In operations against a superior force the Chinese accept that they will not have air superiority. As a consequence their doctrine includes specific active and passive procedures against an attack. Additional antiaircraft guns from army frequently augment organic antiaircraft units which are deployed under divisional control throughout the echelons to achieve a limited defense against air attack. Also, medium and light machineguns from infantry units are deployed specifically throughout the columns to assist in this task.

4-25. *Summary of Leading Components.* The possible order and grouping in which leading Chinese combat vehicles may be encountered by a defending force are given below. Not exhaustive, the following is intended only as a guide.

Vehicles

Role in Combat

- a. Light tank types 62 or 63, APC M16.
Motorcycle with sidecar.
b. Motorcycle with sidecar.
individual trucks and small parties of infantry.
c. Companies of infantry with additional heavy weapons.
Possibly three med. tank.

When first seen as a divisional reconnaissance.

Regimental reconnaissance.

Point or advance guard.

Vehicles

- d. Six to ten medium tanks,
battery of artillery,
battalion of infantry
and engineer vehicle.

Role in Attack

Advance party and may be some elements of the main guard.

4-26. *Routes.* A division is allotted up to five routes and a regiment up to three. The Chinese will sacrifice depth to gain a broad front. In fact, by moving large bodies of troops along minor tracks, the Chinese have often outflanked and outwitted their enemy.

The Attack

4-27. *Types of Attack.* The Chinese ground forces recognize three different types of attack which affect their tactics at division level and below:

- a. *The Meeting Engagement.* logically following the advance, is a collision between opposing forces on the move. It usually takes place before either force is fully deployed.
- b. *The Quick Attack,* whenever possible, is conducted from the march. Its purpose is to penetrate thinly occupied and hastily prepared defensive positions by rapid deep thrusts, disrupting the entire defensive system.
- c. *The Deliberate Attack* requires careful planning and a relatively long period of preparation. It is mounted against a well-prepared defense.

4-28. Figure 8 is a schematic diagram of a Chinese division deployed in a movement to contact.

- a. *Action by the Advance Guard.* On contact, the point, consisting of a reinforced company, engages the enemy and attempts to destroy or contain him. If the point and advance party cannot overcome the resistance, they will quickly dig in and engage the enemy while the advance guard proper (one regiment minus) attacks on one or both flanks to encircle and destroy the enemy or force his retirement.
- b. The advance guard commander deploys his force on a wide front to seek the best avenues of approach to the enemy's flanks. The advance guard action is often a piecemeal operation, units being allotted tasks and launched into action as they become available. These rapid piecemeal attacks are part of the reconnaissance effort to define the enemy's FIBA, to locate weapon and gun positions, and to determine defensive fire tasks.
- c. *Action by the Main Body.* The division commander, from the information gained by the advance guard, will deploy the main body as soon as possible to carry out an enveloping attack to annihilate the enemy.
- d. If the enemy withdraws before encirclement is complete, he will be pursued.

4-29. Rapid and bold offensive action is considered the key to success, even against a stronger enemy, and envelopment is considered the best method of isolating and annihilating portions of the enemy column. The division commander, having allotted his commanders their tasks, places greater reliance on their initiative and judgment in the meeting engagement and in the pursuit that may follow a quick success than in the more deliberate phases of war.



T-59 medium tank in the advance guard



A Chinaman soldier attempting to clear mined area with mine detector.

4-30. *Tanks in the Advance.* The proposed role of armor is based upon the terrain, determines its positions in the advance. However, tanks are normally allocated to the advance guard to support the infantry in its operations.

4-31. The commander husband his armor carefully and is unlikely to commit his tanks until the enemy tank strength has been reduced by artillery and antitank fire. Tanks will then be massed in the main attack to destroy the remaining enemy tanks and strong points and to pursue the withdrawing forces.

4-32. *Artillery in Advance.* The role of artillery is to deliver fire and pin down enemy forces as soon as they come within range, and to counter flame attacks.

4-33. Artillery units are deployed well forward in the advance to exploit the maximum range of the guns. On contact with the enemy, artillery units with the advance guard go into action as rapidly as possible. Direct fire, including tank fire, constitutes a considerable portion of the initial support until artillery with the main body is able to reinforce the fire of the advance guard.

4-34. Chinese doctrine stresses that artillery must be able to support the infantry and armor as they commence their attack.

4-35. *Minelfield Breaching.* Engineers organic to the division and regiment clear or supervise the clearing or breaching of obstacles and minefields on the scale of three lanes per attacking rifle company.

4-36. Mine detectors, probes and dogs are used for mine detection. Mines are neutralized and removed for use elsewhere, although attempts may be made to detonate antipersonnel mines on the spot using long bamboo poles with hooks. Bangalore torpedo-type devices are also used.

4-37. Minefields may also be breached by using mine ploughs or on difficult terrain by mine plough roller combinations. Both are fitted to the front of tanks. These devices clear mines only from the area over which the tank tracks move. The undetonated mines may be destroyed by an explosion-filled hose dragged by the tank across the minefield.

The Quick Attack

4-38. The quick attack is made against an enemy occupying a hastily prepared defensive position. The Chinese consider that such a position is unlikely to have a fully coordinated defense plan and that its fire support will be relatively poor.

4-39. The Chinese emphasize speed in the planning, preparation and execution of the attack consistent with an adequately sustained fire plan. The "one point, two sides" tactical technique (a main attack with simultaneous diversionary attacks) is normally used. The principle of this technique is described in paragraph 4-74.

4-40. *Infantry Division.* An attack by an infantry division with two regiments in the first echelon and one regiment in the second may be launched in a frontage of about 6-7 kilometers. At times, three regiments may be deployed in line for the attack.

4-41. *Infantry Regiment.* In this case the first echelon usually consists of two reinforced battalions and the second, of one battalion. The attack frontage is about 3 kilometers.

4-42. *Infantry Battalion.* The battalion attacks on a frontage of about 700 meters with two reinforced companies in the first echelon and one company in the second.

4-43. *Tanks in the Assault.* All available tanks are placed under command of the unit carrying out the attack. Tanks will normally be massed and deployed in the front of the first echelon.

4-44. *Fire Support.* Fire support is described in section IV, chapter 3. A quick conventional fire plan will be drawn up while the infantry moves into attack positions. This allows for the employment of divisional artillery and infantry mortars.

4-45. Minefield breaching is discussed in paragraphs 4-35 - 4-37.

The Deliberate Attack

4-46. The deliberate attack against a well-organized defensive position is characterized by careful planning, increased reconnaissance activities, and the deployment of numerically superior forces against specific positions. In fact, a Chinese infantry division may be employed against a battalion position or a battalion against a platoon.

4-47. *Army.* This formation may carry out an attack either independently or as part of an army group. The attack frontage is normally about 8 kilometers and its initial objectives are about 10 to 15 kilometers deep. Final objectives may be up to 50 kilometers.

4-48. *Infantry Division.* The division, usually controlled by army, attacks on a 4-kilometer front, normally in two echelons. Initial objectives are 3 or 4 kilometers behind the enemy FEBA and final objectives may be up to 10 to 15 kilometers. If the attack is on a narrow front, the Chinese may use three echelons.

4-49. *Infantry Regiment.* The division commander may use one or more of his infantry regiments to try to outflank and encircle the enemy. The regiment attacks in two echelons, the first consisting of two reinforced battalions, the second, of one battalion on a frontage of up to 2 kilometers. Objectives are allocated only to the first echelon battalions; the second echelon follows the first echelon and is usually given missions of mopping up bypassed centers of resistance. Both echelons are considered to be committed.

4-50. *Infantry Battalion.* The battalion normally attacks in two echelons in a manner similar to the regiment.

4-51. *Rifle Company.* The company is considered to be the smallest force capable of using the "one point, two sides" and "divide and destroy" techniques. It often attacks in two echelons, but it can attack in one. Orders are usually very specific and give the company commander little scope for independent action.



Armor and infantry in the deliberate attack

4-52. *Frontages.* The frontage allotted to a force depends on a number of variables. Listed below is a guide to the frontages for various units carrying out a deliberate attack.

a. Army	6-10 kilometers
b. Division	2-4 kilometers
c. Regiment	1-2 kilometers
d. Battalion	500-700 meters
e. Company	250-350 meters
f. Platoon	100-150 meters

4-53. *Tanks in the Assault.* Tanks, when available, are normally placed under operational control of the regiment which in turn allocates them to the leading battalions in the first echelon of the attack. Tanks are massed to assist the infantry's advance into the depths of the enemy's defense. It is unusual for tanks to be used in smaller than company strength (10 tanks).

4-54. *Fire Support.* At least one of the division's organic artillery battalions, consisting of three batteries, will normally be placed in direct support of each of the first echelon regiments.

4-55. Artillery from army resources will give additional fire support to the attacking regiments.

4-56. Artillery is usually in position at least 24 hours before an attack. Preliminary ranging may well reveal Chinese intentions.

4-57. An example of a fire plan of a deliberate attack is as follows:

Time (minutes)	Artillery Fire	Action by Assaulting Troops
11-68 to 11-67	Rapid and concentrated neutralization.	Move to line of departure completed by 11:55.
11-67 to 11-43	Destruction.	
11-43 to 11-33	Howitzers stop firing, guns and mortars continue.	
11-33 to 11-5	Destruction.	Infantry assault preceded by tanks at 11 hours. Assault.
11-5 to 11-1	Howitzers fire in depth, guns and mortars continue.	
11-1 to 11+1	Rapid and concentrated neutralization.	
11+1	Neutralization barrage extended in depth. Ranging for defensive fire tasks.	



Infantry squad in the assault

4-58. Direct fire from field and antitank guns often supplements the fire plan just prior to and during the assault. In addition, 5 minutes before the assault, known enemy positions are engaged by all other weapons within range, including small arms and recoilless rifles.

4-59. *Minefield Breaching.* See paragraphs 4-35 -4-37.

4-60. *Battalion Attack.* As part of a regimental attack, the pattern of a typical deliberate attack might be as follows:

- a. Battalion in divisional assembly area approximately 8 to 30 kilometers behind the FEBA at H minus 2 days.
- b. Battalion moves to the regimental attack position under cover of darkness some 5 to 10 kilometers behind the FEBA at H minus 1 day.
- c. Battalion moves to its attack position some 1 or 2 kilometers behind the FEBA, at H minus 9 to H minus 2 hours, where it organizes into its assault formations (two companies up, one back).
- d. The assault echelon, under cover of artillery and battalion supporting weapons, then moves forward in close formation (usually arrowhead) to the company assault positions within 200 meters from the objectives.
- e. At this point the platoons, with each of their squads divided into three teams, advance in a skirmishing formation with 3 to 5 paces between individuals and 7 or 8 paces between teams. They follow their own artillery concentrations very closely and are prepared to suffer some casualties in order to take maximum advantage of their own fire.
- f. Depending on the terrain, the tanks will time their movement to get ahead of the infantry in the assault.
- g. The assault is made in a continuous rush. As soon as the squads are within range, handgrenades are thrown to cause confusion, smoke, dust and casualties. As the squads reach the enemy positions, all members fire their weapons and close with the enemy to destroy him at pointblank range.
- h. On clearing the objective, the assault force will continue its attack and exploit beyond the objective while the support echelon consolidates on or near the objective. If the assault echelon has suffered heavy casualties, exploitation will be carried out by the support echelon.
- i. The Chinese reorganize rapidly and are formidable diggers. Under reasonable conditions, a battalion can, in one night, dig in and provide overhead protection to a depth of 18 inches.

The Pursuit

4-61. The pursuit will start when the enemy either is routed or attempts to break contact in a preplanned withdrawal.

4-62. When it becomes apparent through intensified reconnaissance that the enemy is planning or has just begun to withdraw, an attack is launched immediately to confuse him and disrupt his plans. Once it is clearly determined that a withdrawal is in progress, pursuit is initiated. All available units are committed immediately, piecemeal if necessary, to insure that contact is maintained with the retreating enemy. Once initiated, pursuit cannot be terminated except on orders from a higher headquarters.

4-63. *Pursuit Tactics.* In the pursuit, close and continuous pressure on the enemy is considered necessary to prevent his regrouping or reassuming the defensive. As soon as possible, the Chinese form two or more columns, one to exert direct pressure and the others to move on either flank parallel to the withdrawing enemy in an attempt to overtake, encircle and then destroy him.

4-64. The flanking columns are organized from units of the support echelon and the reserve. They are often motorized and reinforced with tanks if available. Speed is emphasized and enemy strongpoints are bypassed so that critical road junctions and defiles on the enemy withdrawal routes can be seized and defended.

4-65 4-70. *Referred.*

SECTION II--RIVER CROSSING

4-71. The Chinese conducted river-crossing operations during both the Civil War and the Korean conflict. Most crossings were made by fording, swimming, utilizing hastily constructed rafts or bridges, or commandeering boats from the local populace. The acquisition of modern river-crossing equipment from the Soviet Union in the 1950's and 1960's and the Chinese manufacture of Soviet-designed equipment have improved the PRC's capability to conduct river-crossing operations. However, this capability has yet to be tested under actual combat conditions.

4-72. Chinese doctrine considers the river crossing to be merely a phase of the normal advance to be conducted without any loss of momentum. Whenever possible, crossings are made at night or under conditions of poor visibility. If it is necessary to make a crossing by daylight, smoke is used to conceal both the preparations and the operation.

4-73. Frontages and objectives are similar to those for a normal attack (described in section I of this chapter 4).

4-74. *Principles.* The following principles are regarded by the Chinese as a key to a successful river crossing:

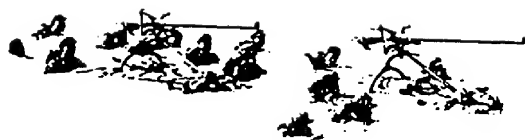
- a. Reconnaissance.
- b. Early planning and thorough organization.
- c. Destruction of the enemy in the area.
- d. Deception.
- e. Improvisation of crossing aids.
- f. Speed and surprise.
- g. Crossing on a broad front.
- h. Swift development of the attack on the far bank.
- i. Massing of forces against enemy weakpoints.
- j. Air defense.

4-75. *Types of River Crossings.* The Chinese execute two types of river crossings: the hasty crossing and the deliberate crossing.

- a. *The hasty crossing* is a swift, uninterrupted movement normally conducted from the line of march.



Bamboo rafts are used to carry not only weapons and equipment but injured personnel as well.



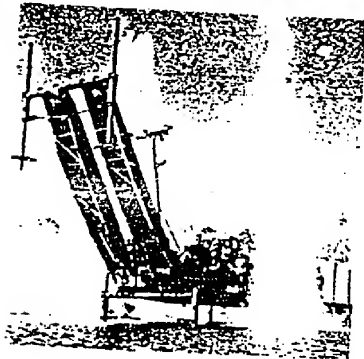
Transporting recoilless rifles on makeshift rafts



PRCA troops crossing the Yangtze River on TPP heavy ponton bridge

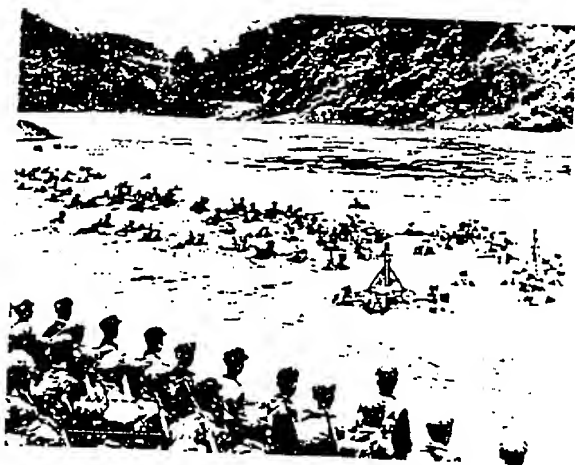


N2P 45 steel ponton bridge used by PRCA troops in a river crossing exercise



PLA troops erecting a KVM bridge

Bridging



An infantry unit conducting a river crossing operation.

- b. The crossing is usually undertaken only if aasty crossing has failed and if a large, well-fortified water obstacle must be crossed and breached.

Nonengineer Water-Crossing Capability

4.76. *Infantry.* The standard Chinese infantry division possesses limited organic equipment for river crossings. However, it is thoroughly trained in improvising field expedients for crossing minor water obstacles. Puntchows make temporary floats for ferrying machineguns, machine rifles, and mortars. Rafts made from oil drums and bamboo are used to carry heavier weapons and supplies. The bulk of the forces swim or wade even major rivers. Ropelines from bank to bank speed up the crossing and provide safety.

4.77. *Tanks.* The PRV A-174 SS, Type 59, and Type 62 tanks can wade up to a depth of 1.2 meters. The Chinese are not known to possess snorkel equipment. The Type 62 light tank, found in the reconnaissance elements of both infantry and armored divisions, is the only amphibious tank in the Chinese inventory. It is the PRV A's primary armored reconnaissance vehicle. (See appendix 1 to annex A.)

4.78. *APCs.* The M-1967 APCs found in the mechanized infantry regiment of the armored division are amphibious. (See appendix 1 to annex A.)

4.79. *Artillery.* Chinese guns and prime movers are not amphibious and rely on engineer crossing facilities.

Engineer Water-Crossing Equipment (see appendix 4 to annex A)

4.80. The PRV has only a limited quantity of engineer water-crossing equipment. Most are of Soviet manufacture or design, some date back to World War II. As a result, China's ground forces rely heavily on improvisation and local resources to support any major river-crossing operation.

4.81. *Trucks.* The Chinese are thought to possess a few Soviet-built tracked amphibians at army level. In addition, U.S.-manufactured DUKW-type wheeled amphibious trucks and T4-type tracked amphibious carriers captured from the Nationalists and Chinese forces thereafter are probably still in the Chinese inventory.

4.82. *Boats.*

a. *Large boats.* It is thought that the Chinese have some 1,500 MTU Soviet-type 500- to 12,000-ton river steamships.

b. *Small boats.* The Soviet tracks in United States bridge (KMB) is known to be in the inventory. In addition, it is thought that the Chinese may have some KMBs, load capacity

c. *Boats.*

(1) Light barges with plywood hulls and steel superstructure similar to the ones used by the DPR.

(2) Medium barges with steel portions and superstructure similar to the Soviet N2P-43.

(3) Heavy barges with steel portions and superstructure (Soviet TTP-150) imported from USSR.

- (4) Improvised bridges built below water level at a safe vehicle traversing depth.
- (5) LZ's floatbridge (rovers).
- (6) Unknown quantities of Bailey bridging.

4-53. *Rafts and Logs.* Varying numbers of rafts can be constructed from the bridging mentioned above in paragraph 4-52. If rafts are to be built then the length of the bridges must be reduced in proportion to the number of rafts used.

4-54. *Boats.*

- a. Simple, collapsible assault boats capable of carrying 10 men or 2 short tons.
- b. Steel ponton boats, of 25-man or 6-short-ton capacity, normally used as the basis for ponton bridges.
- c. Inflatable five-man reconnaissance boats.
- d. An almost inexhaustible supply of civilian wooden boats ranging from one-man fishing boats to large tanks.

Conduct of the Operation (in the hasty crossing)

4-55. A possible Chinese view of the sequence of actions by an infantry division crossing a water obstacle (to the line of attack is described in the paragraphs below.

4-56. *Reconnaissance.* The division commander makes an outline plan for the crossing and issues orders in the rear assembly area. Division and regiment reconnaissance platoons, reinforced with elements of division's engineer battalion, are dispatched ahead of the main body to reconnoiter crossing sites, forward assembly areas, and the near bank. So far as possible, they also reconnoiter the far bank to determine terrain conditions and enemy strengths and dispositions. Concurrently, river-crossing equipment, both organic and improvised, is assembled in selected areas near assault positions and crossing sites.

4-57. *Approach.* The division adopts a formation normal for a movement to contact in its approach to the water obstacle. After the reconnaissance is completed, an advance guard or forward detachment from each first echelon regiment, normally of reinforced battalion strength, is assigned the mission of securing the near bank and, when possible, of forcing the initial crossing. If the crossing cannot be accomplished in this manner, the advance guard is employed to secure the near bank on a broad front, destroy obstacles and establish a base of fire to support crossings by the assault elements of the regimental first echelons.

4-58. *The Assault.* The assault regiments are located in covered assembly areas some 3 to 5 kilometers from the obstacle. The first echelon battalions move from these assembly areas, cross a line of departure as near to the obstacle as possible, and begin crossing under the cover of direct and indirect fires. The assaulting battalions initially move in column to facilitate control, but on nearing the obstacle deploy and make the crossing on a broad front. The supporting battalions normally cross in successive waves at the closest interval possible. Every effort is made to get some attack across the river with the

assaulting battalions and regiments. Usually the artillery plan employs two-thirds of the artillery engaging the enemy while one-third is crossing the river.

4-89. *Operations on the Far Bank.* Upon reaching the far shore, the assaulting troops move inland as quickly as possible to clear the crossing area of direct enemy fire and secure the flanks. Each assault battalion is expected to establish a beachhead from 1 to 2 kilometers wide and approximately 1 kilometer deep, but these dimensions will vary with the terrain. The landing area is cleared of mines and obstacles so that bridges may be constructed and ferries utilized to facilitate the crossing of tanks, supporting weapons, and second echelon forces.

The Deliberate Crossing

4-90. The deliberate crossing differs from the hasty crossing largely in the degree of preparation. A thorough reconnaissance is conducted in advance and a detailed fire plan is organized. Preliminary preparations are carried out in assembly areas well to the rear of the obstacle. Movement toward the obstacle is usually made at night, under the cover of preliminary bombardment fires and the actions of forces in contact on the obstacle. The actual assault and crossing usually take place at dusk or during other periods of poor visibility, under cover of artillery fires. The crossing and consolidation will generally then follow the lines of the hasty crossing although timings will inevitably be slower by night.

4-91 4-96. *Reserved.*

SECTION III - DEFENSIVE OPERATIONS

4-97. The Chinese define the defense as an intermediate stage in the overall, broad offensive aim. It is assumed if the offensive is terminated due to strong enemy action or if time is required to concentrate forces for the counteroffensive. Defense is regarded as a temporary expedient adopted in order to

- Preserve friendly forces while weakening those of the enemy.
- Gain time to concentrate forces for the offensive or counteroffensive.
- Economize forces to allow an offensive to be mounted in another area.
- Consolidate captured objectives.
- Cover a withdrawal.

(See figure 9.)

4-98 Chinese defensive postures are based on

- Firmly holding areas of tactical importance with well dug-in troops.
- Retaining in the second echelon mobile reserves to block penetrations and to counterattack.
- Using all available firepower.
- Making maximum use of both natural and artificial obstacles throughout the defensive area. Defensive positions are normally placed behind natural antitank obstacles which are improved or supplemented by constructing boobytrap entanglements and laying antitank and antipersonnel mines.

Forms of Defense

4-99. Broadly, the Chinese employ two types of defense: positional and mobile.

a. *Positional Defense*. This is similar to the U.S. concept of the area defense. It is organized in depth and designed to deny vital areas to the enemy or to halt his attack while inflicting significant losses on his men and material. Forward units engage the enemy decisively and hold at all costs with no thought of withdrawal to successive positions. At the same time, this defense permits the massing of Chinese forces for the counteroffensive.

b. *Mobile Defense*. This has developed from China's long experience in mobile revolutionary warfare. It is a "hit-and-run" type of defense based on a war of movement. It is conducted as a series of defensive actions followed by controlled movement to the rear, with the aim of inflicting maximum casualties on the enemy without undue loss to one's own forces. Retention of terrain, *per se*, has only a passing relevance or importance. Chinese forces are organized so they can break contact at will, thereby enabling them to continue their stepping-back process until the purpose of the mobile defense is achieved or until they have withdrawn back to an area where the bulk of their forces are deployed in a positional defense role.

Organization for Defense

4-100. *Echelon*. At all levels, a commander will divide his forces into two echelons for the purpose of defending a given area.

4-101. *Defensive Areas*. The area to be defended by a unit is divided into three positions:

a. *The Security Position*. It is occupied by the unit's screening force, its reconnaissance elements, and the security force.

b. *The Main Defensive Position (MDP)*. The MDP is occupied and defended by the unit's first echelon.

c. *The Position in Depth (PD)*. The PD is occupied and defended by the unit's second echelon, also considered to be the unit reserve. It consists of the balance of the unit's organic and attached strength. At division level, it also includes the motorized counterattack force normally deployed in assembly areas between the main defense position and the position in depth.

4-102. *Frontages and Depths*. The following table sets forth frontages and depths for various formations. These figures relate to frontages and depths in defense in a main sector. Frontages in subsidiary sections are considerably greater.

Frontages and Depths in Defense in a Main Sector				
	Mobile Defense		Positional Defense	
	Frontage	Depth	Frontage	Depth
Army	32-80 km	Depth varies	16-40 km	30-100 km
Division	16-24 km	too much	8-12 km	10-20 km
Regiment	6-8 km	for average	3-4 km	3-6 km
Battalion	2-4 km	figures	1-2 km	1-5 km
Company	1-1.5 km	to be	500-700 m	500-700 m
Platoon	500-700 m	given	250-500 m	250-500 m

4-103. *Deployment.*

- a. *Army.* An army normally deploys with two infantry divisions in the first echelon and one infantry division in the second. However, in a wide subsidiary sector, it might deploy with three infantry divisions forward.
- b. *Division.* An infantry division normally deploys with two regiments in the first echelon and one regiment in the second. In a subsidiary sector, some or all of the third regiment may be in the first echelon.

4-104. *Dispersion.* Chinese forces are always sufficiently dispersed to prevent a single tactical nuclear weapon from destroying more than one battalion-size unit.

4-105. *Covering Forces.* Elements (usually not more than a reinforced regiment) of the army's second echelon or of an armored division attached to the army will normally be employed as the covering force in front of the division defense zones. The distance that it operates in front of the FFBA varies from 10 to 100 kilometers and obviously depends on the terrain, the relative strength of opposing forces, and the overall mission of the Chinese commander.

The Division in Positional Defense (see figure 10)

4-106. The infantry division normally participates in defensive operations as part of a larger force. The army commander prescribes the area to be defended by the division and coordinates the employment of artillery and armor. He also coordinates barrier and denial operations throughout the army defense zone.

4-107. The infantry division commander is responsible for the following:

- Organizing and defending an assigned defensive zone
- Providing security for supporting arms and services within the zone
- Constructing fortifications to withstand artillery fire and attacks by armor and from the air
- Maintaining the integrity of the FFBA and inflicting maximum casualties on the enemy in front of the FFBA
- Should a penetration of the FFBA occur, counterattacking to restore the integrity of the FFBA or, if this is not possible, containing any penetration of the FFBA until counterattacks can be mounted by a higher headquarters.

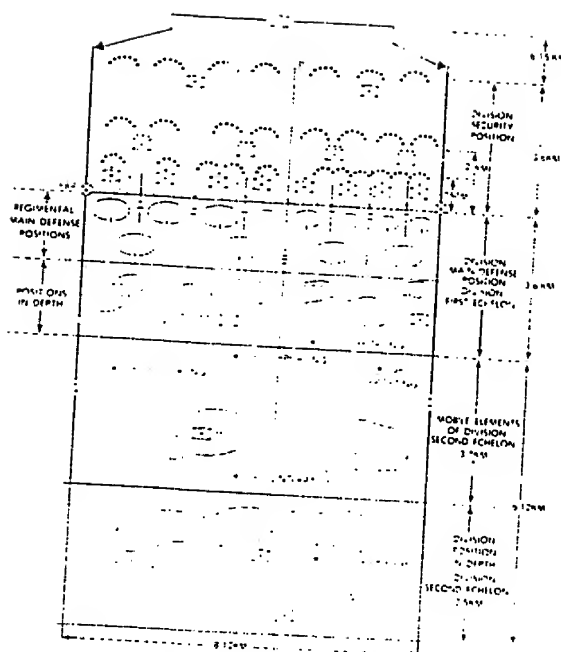


Figure 10. Positional Defense of the Division

4-108. Division Defense A ..

a. *Security Position.* The security position is located forward of the main defensive position. It is lightly manned by mobile troops who provide security for forces in the main defensive position.

(1) *Screening Force.* This consists of the division reconnaissance company. It is deployed 6 to 15 kilometers forward of the main defensive position to provide early warning, to maintain liaison with the army's covering force, and to determine enemy strength and main axes of advance. It will fall back under pressure through the security forces into the main defensive position where it will be used to cover gaps, to protect flanks, and to provide rear area security, particularly against airborne attacks.

(2) *Regimental Security Force.* This force operates some 3 to 6 kilometers in front of the FEBA and is deployed in locations prescribed by the division commander. The force normally consists of one reinforced company from each of the frontline regiment's second echelons. The regiments retain operational control over their reinforced companies. The tasks of the security force are to:

- Defend stubbornly if the situation permits.
- Engage the enemy at long range in an attempt to force him to deploy prematurely and thereby slow down his advance.
- Deceive the enemy as to the strength, dispositions and intentions of the main defensive force.
- Maintain contact with the attacking force.
- Protect the main position from a surprise attack.

(3) *The Battalion Security Force.* Normally, each battalion is required to provide a reinforced platoon to man security positions up to some 2,000 meters in front of the FEBA. Operational control is retained by the battalion commander. Tasks are the same as for the regimental security force.

(4) *The Company Security Force.* Each frontline company usually provides a reinforced squad to man security positions up to some 750 meters in front of the FEBA. In very close terrain the battalion commander may not order the establishment of such a force. Operational control remains with the companies at all times.

(5) *Supporting Fire.* Artillery, tank and heavy weapon fires are carefully coordinated to support the security forces mentioned above.

b. *Main Defensive Position (MDP).* The bulk of the division is deployed in the division MDP. The position is organized in depth as a continuous defensive belt. This defensive belt is made up of mutually supporting strongpoints or localities employing all-round defense across the entire frontage. These strongpoints are expected to hold out even if bypassed or encircled. Gaps between companies and battalions are covered by observation, fire and minefields.

(1) *Forces:*

- in the division MDP—normally two reinforced regiments.
- in the regimental MDP—normally two reinforced battalions.
- in the battalion MDP—normally two reinforced companies.
- in the company MDP—normally two reinforced platoons.
- in the platoon MDP—normally two reinforced squads.

(2) *Tasks:*

- (a) to organize and defend their assigned sectors.
- (b) to inflict significant losses on the enemy and his equipment in front of the FEBA.
- (c) to prevent penetration of the FEBA and, should penetration occur, to restore the integrity of the FEBA.

c. *Position in Depth (PD).* The position in depth is organized in such a way as to stop deep penetration of the defense zone, to provide a firm base to support counterattacks, and to provide rear area security. This organization applies to all units carrying out a positional defense. At division level one regiment normally mans the PD, the forward edge of which is usually located 6 to 13 kilometers behind the FEBA. The regiment normally organizes the PD with two of its three battalions. Strongpoints are often constructed on the reverse slopes of key terrain features. In addition, blocking positions are constructed. The third battalion of the regiment is usually motorized, forming part of the mobile counterattack force of the PD, and is located between the MDP and the actual PD itself.

(1) *Forces:*

- (a) in the division PD—one infantry regiment and one tank assault gun regiment (-).
- (b) in the regiment PD—one battalion.
- (c) in the battalion PD—one company.
- (d) in the company PD—one platoon.
- (e) in the platoon PD—one squad.

(2) *Tasks:*

- (a) to organize and defend the PD.
- (b) to provide rear area security.
- (c) to counterattack in order to destroy any enemy penetration and to restore the integrity of the FEBA.
- (d) to contain enemy penetrations.
- (e) to act as a division reserve.

4-109. *Division Antitank Force.* The Chinese may use an artillery support group (possibly battery size) in the antitank role. It will be sited to cover the most likely enemy thrusts or to cover a "killing zone" into which enemy armor has been purposely canalized.

4-110. *Division Counterattack Force.* The tank assault gun regiment (-) and one motorized infantry battalion of the division second echelon, which are located in assembly areas forward of the positions in depth, comprise the counterattack force.

4-111. *Reserve.* The regiment less one infantry battalion which mans the position in depth is also considered the reserve. If a counterattack by the division counterattack force should fail, the army commander may direct the reserve to be used as a counterattack force. The commitment of the reserve may be made only on orders from the army commander.

4-112. *Division Headquarters.* A forward command post is established forward of the position in depth. Main headquarters is located behind the division second



PRCA regular forces and militia organized into antitank teams.

echelon regiment in the position in depth. Rear headquarters is with the rear service units up to 50 kilometers behind the FFBA.

4-113. *Fire Support.* The principles of fire support and the allocation of artillery are described in section IV, chapter 3.

a. *Fire Plan.*

(1) *Nuclear and Chemical.* While the Chinese are not known to possess tactical nuclear launchers, they may use strategic missiles in support of ground forces in defensive operations. In this event, preplanned nuclear and chemical strikes will be targeted against communication centers, on likely enemy deployment areas, and to cover any large gaps in the overall defensive concept.

(2) *Conventional.* Fire planning is centralized, some of it at army level, until the enemy's main attack has begun. It is designed to fulfill three main roles:

(a) *Counter Preparation.* An elaborate fire plan is made by the army artillery commander. It aims to engage the enemy's batteries and deployment areas as early as possible and to concentrate the fires of all weapons so that the enemy is subjected to progressively heavy bombardment as he approaches the main defensive zone.

(b) *Defensive Fire.* Linear and area concentrations are planned and registered to cover gaps, likely areas of attack and possible areas of penetration.

(c) *Counterattack Support.* Concentrations are preplanned to support counterattacks.

b. *Antitank Plan.* The division plan basically implements the army antitank plan employing organic antitank units and those units allotted from army resources. It expands the army's concept to include the manner in which the battalion and sometimes the company organize their antitank defense.

(1) Normally the antitank defense comprises four belts: three belts in front of the FFBA and a fourth in the defense-in-depth position.

(a) The *first belt* is located in the division security position and is manned by the regimental security force. It consists of antitank minefields and obstacles covered by supporting fire. In addition, special antitank teams organized from the regimental security force are employed.

(b) The *second belt*, also located in the division security position, is manned by the battalion security force. It is organized in a similar fashion to the first belt mentioned above.

(c) The *third belt* generally coincides with the belt of final protective fires established by frontline units of the main defensive position. It consists of obstacles and minefields covered by small-arms fire and organic antitank weapons.

(d) *Defense in Depth.* Antitank weapons are sited to cover the main tank approaches and areas into which tanks are hopefully being canalized. They are located principally in the MDP and the area between the MDP and the PD.

- (2) In addition special antitank teams of three to five men may be formed to seek out and ambush enemy tanks in the main defensive position.
- (3) A mobile division reserve of antitank weapons is collocated with the mobile elements of the second echelon in the area between the MDP and PD. Its role is to deploy rapidly to meet and contain enemy tank thrusts.
- (4) Antitank guns, recoilless rifles, and artillery employed in the antitank role are usually sited in pairs. These weapons are normally moved after each firing to avoid detection.
- c. *Air Defense Plan.* The air defense plan is coordinated at division level employing regiment and division antiaircraft weapons to protect
 - (1) Division headquarters.
 - (2) Artillery positions.
 - (3) Mobile elements of the second echelon and the reserve.
 In addition, where possible, some antiaircraft weapons are so located as to have a dual but subsidiary role of assisting in the antitank defense.
- d. *Deployment of Division Artillery.* The division commander, through his artillery commander, organizes his organic and attached artillery units into the following groups.
 - (1) Long-range groups consisting of heavy and high-powered artillery under division control deployed 6 to 10 kilometers behind the FEBA.
 - (2) Direct support groups deployed 2 to 5 kilometers behind the FEBA.
 - (3) Roving artillery groups deployed in the division security position or in alternative positions in the MDP to support the security forces and confuse the enemy.

4-114. *Dug-in.* The ability and the willingness of the Chinese soldier to dig in and construct extensive, elaborate trenchwork are extraordinary. Given time, he will build weapons emplacements and troop shelters that will withstand all but direct hits by conventional weapons.

- a. *Infantry.* All infantry are dug in in a series of interconnecting strongpoints which are organized for all-round defense and are mutually supportive. If time permits communication trenches and alternative positions are dug laterally between platoons and back to company headquarters. Overhead cover is normally provided for the bunker entrances, troop shelters, individual foxholes and machinegun emplacements. Camouflage is used extensively to provide concealment.
- b. *Tanks and APC's.* Tanks and APC's are normally dug in. Explosives and dozer blades, if available, are used to assist human endeavor. Camouflage is used extensively to provide concealment.
- c. *Artillery.* Guns may be dug in. Camouflage is used extensively to provide concealment.

4-115. Conduct of the Battle.

- a. *In the Division Security Position.*
 - (1) *Screening Force.* Troops from the division reconnaissance company will make contact with the enemy some 6 to 15 kilometers in front of the FEBA. They will fall back under pressure without



PRCA troops and militia practicing a counterattack

becoming inextricably engaged and pass through the regimental security forces into the division position in depth. Long-range artillery and air strikes will be used against reported targets.

(2) *Security Forces.* After the withdrawal of the screening force, the regimental security force, supported by air and artillery strikes, will conduct a stubborn defense. When further resistance is considered unprofitable, the division commander will order a withdrawal through the battalion and company security positions to their respective regimental PD's. As the enemy pressure increases, the battalion and company security force will be withdrawn.

b. *In the Division Main Defense Position.*

(1) *Precursor.* An intense counterbattery fire plan, assisted by combat aviation will be fired to preempt and, if possible, neutralize the enemy's preparatory bombardment. Likely enemy assembly areas and lines of departure will be targeted to disrupt his attack intentions. Troops in the defensive positions will occupy shelters to protect them against nuclear, chemical and conventional fires. Radio silence is maintained.

(2) *The Assault.* As soon as the enemy launches his assault on the MDP, fire from all available weapons is brought to bear on his forces. Infantry heavy weapons and supporting artillery attempt to separate hostile tanks from their accompanying infantry, so that the tanks may be destroyed more easily by infantry antitank teams, and the attack slowed down, if not halted. The first echelon battalions of the frontline regiments in the MDP, in accordance with doctrine, will not withdraw even if bypassed or surrounded. As enemy penetrations are made, the second echelon battalions of the regiments will either launch previously prepared counterattacks in an attempt to destroy the penetration and restore the integrity of the FEBA or endeavor to contain the penetration from alternate positions prepared in depth.

c. *In the Division Position in Depth.*

(1) Preplanned counterattacks are conducted at every level should the enemy succeed in breaching the defensive positions. Normally the authority of the next superior commander is required before they can be launched. Counterattacks usually consist of fire from all types of weapons followed by infantry attacking from a different direction. As with their attack tactics, the Chinese will usually try to gain surprise with a flank attack while the enemy is reorganizing or counterattack at night or when visibility is restricted.

(2) At division level two counterattack forces are normally assigned the task of destroying enemy penetrations which have survived various counterattacks delivered by the regiments in the main defensive position. The first force is the mobile combined arms group of division's second echelon which is normally deployed forward of the actual position in depth and which is under the control of the division commander. If this force is unsuccessful, the division commander will inform the army commander who will direct him to commit his entire second echelon either to:

- (a) destroy the enemy penetration and restore the FEBA, or
- (b) strengthen and defend the division PD in order to contain the penetration and cover the withdrawal of the division first echelon.

The Mobile Defense at Division Level (see figure 11)

4-116. Mobile defense is conducted when the terrain on which it is fought is not considered critical, thereby allowing the Chinese to trade space for time. At the same time, the mobile defense enables the Chinese to deploy massive forces to attack the invader. The division participates in the mobile defense usually as part of a larger force. The mobile defense is conducted as a series of defensive battles fought at previously designated lines of resistance forward of a final interception line. It is characterized by surprise, limited counterattacks, and ambushes carried out in strength aimed at inflicting maximum casualties on the enemy, not on the retention of ground.

4-117. Division Defense Role

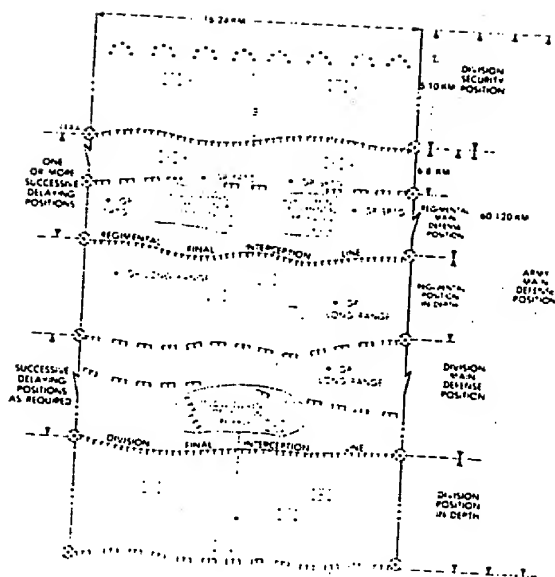
a. The Security Position

(1) The security force, controlled by the division commander, consists of two reinforced battalions, usually mobile, from the second echelons of the frontline regiments. It operates some 5 to 10 kilometers in front of the FFA. Its tasks are to:

- (a) maintain contact with the army covering force;
- (b) establish and maintain contact with the enemy after the army covering force has withdrawn;
- (c) determine enemy strength and avenues of approach;
- (d) engage the enemy at long range to force him to deploy prematurely; and
- (e) conduct a delaying action while inflicting the maximum number of casualties on the enemy.

(2) Upon completion of its tasks, the security force withdraws through the FFA and the battalions revert to the operational control of their respective frontline regiments.

b. *The Main Defensive Position (MDP)*. The division MDP is divided into two regimental sections. Two reinforced regiments, the division's first echelon, are deployed abreast in the MDP as they are in the positional defense. The third regiment occupies the division position in depth. Any similarity to the positional defense, however, ceases at this point because within the main defense positions of regiments, battalions, and companies, usually a third of the strength constitutes the first echelon with two-thirds held back in reserve. Conversely, firepower is deployed with two-thirds of its strength forward and the remaining one-third in the rear. The regimental MDP itself is organized with a defensive belt across the FFA with subsequent, preplanned delaying positions to the rear until regimental final interception lines are reached at the forward edge of the regimental positions in depth where a positional-type defense may be conducted. Small-scale defensive battles involving surprise attacks and/or withdrawals are fought by combined arm groups in an attempt to delay, fragment, canalize, and/or exhaust superior enemy forces until these forces are susceptible to piecemeal destruction by a major counterattack. At no stage of this operation will the Chinese become decisively engaged. When the regiments have withdrawn to the regimental final interception line, mobile defense operations by the regiments in the division MDP cease and the mobile defense by the next higher echelon is initiated.



DEFENSIVE POSITION ————
 DELAYING POSITION ————

NOTE: 1. DISTANCES BETWEEN SUCCESSIVE DELAYING POSITIONS ARE SUCH AS TO CAUSE THE ENEMY TO REGROUP AND REDEPLOY TO ATTACK SUCH POSITIONS.

2. DISTANCES ARE APPROXIMATE.

3. ADDITIONAL ARTILLERY HAS BEEN ALLOTTED.

Figure 11. The Defense of the Division

(1) *Forces:*

- (a) in the division MDP—normally two reinforced regiments.
- (b) in the regiment MDP—normally one reinforced battalion.
- (c) in the battalion MDP—normally one reinforced company.
- (d) in the company MDP—normally one reinforced platoon.
- (e) in the platoon MDP—normally one reinforced squad.

(2) *Tasks:*

- (a) to inflict maximum casualties on the enemy.
- (b) to cause the enemy to deploy across the FEBA and attack the defended positions.
- (c) to effect withdrawal before becoming decisively engaged while delaying the enemy's advance.

c. *The Position in Depth (PDI).* The division PD is a designated defensive zone occupied by the division's second echelon, normally consisting of the division's third regiment, the remainder of the division's organic strength and possibly reinforcements from army. The second echelon of regiments and smaller units occupying their respective PD's, on the other hand, is composed of two-thirds of the unit's strength. The purpose of the forces in the PD, depending on the situation, is either to carry out a position-type defense along final interception lines or to mount counterattacks against overextended, hostile forces.

(1) *Forces:*

- (a) in the division PD—one infantry regiment and one tank-assault gun regiment (—).
- (b) in the regiment PD—two infantry battalions and one tank company (—).
- (c) in the battalion PD—two infantry companies.
- (d) in the company PD—two infantry platoons.
- (e) in the platoon PD—two infantry squads.

(2) *Tasks:*

- (a) to mount counterattacks aimed at the destruction of enemy forces.
- (b) to conduct a position-type defense along previously designated defensive (final interception) lines.
- (c) to assist in the withdrawal of the first echelon forces from the MDP.
- (d) to provide a mobile reserve.
- (e) to provide flank and rear area security.

4-118. *Fire Support.* The principles of fire support and the allocation of artillery are described in section IV, chapter 3.

a. *Fire Plan.* In a positional defense, the fire plan is centralized at army and division levels. However, in the mobile defense the planning and employment of artillery are delegated to subordinate commanders in order that fire is responsive to the rapidly changing tactical situation.

b. *Antitank Plan.* The majority of antitank weapons are allocated to frontline units to counter potential tank threats. These units are then responsible for planning their own antitank defense within the overall defensive plan.

c. *Air Defense Plan.* Divisions and regiments plan for the deployment of their organic defense units. Priority for protection is given to:

- (1) unit headquarters,
- (2) artillery positions, and
- (3) mobile reserve.

d. *Deployment of Artillery.* Organic and attached artillery are organized into the following groups:

(1) *Long-range Groups.* Both normally deployed some 5 to 10 kilometers behind the FEBA, providing direct support to battalions and regiments.

(2) *Direct-support Groups.* Both normally deployed some 5 to 10 kilometers behind the FEBA, providing direct support to battalions and regiments.

(3) *Roving Groups.* Normally deployed in the division security position or the MDP as part of a combined-arms team.

4-119. *Conduct of the Battle.*

a. *In the Division Security Position.* Following the withdrawal of the army covering force, the two reinforced battalions, which constitute the division security force and which are under the operational control of the division commander, will make contact with the enemy some 5 to 10 kilometers forward of the FEBA. This force will engage the enemy and delay him for as long as possible until he is forced to withdraw through the FEBA. The battalions then revert to the operational control of their respective regiments where they become part of the regiment's second echelon deployed in the PD.

b. *In the Main Defensive Position and the Position in Depth.* Elements of the regiment's first echelon occupying defensive positions along the FEBA will engage the enemy in an attempt to stop his advance and force him to deploy his forces for a coordinated attack. As the coordinated attack develops, the regiment commander, depending on the situation, has three courses of action:

(1) He may order his first echelon forces to continue defending along the FEBA, without becoming decisively engaged.

(2) He may decide to mount a counterattack employing his second echelon forces.

(3) If enemy pressure increases to such an extent that it is considered inexpedient to continue the defense along the FEBA, he may order his first echelon forces to withdraw to defensive positions along the regimental final interception line while carrying out aggressive delaying actions, assisted by mobile elements of the regiment's reserve.

If a withdrawal is undertaken, as soon as the first echelon is deployed along the regimental final interception line, the conduct of the mobile defense is assumed by the division commander. As the enemy attack continues, the division commander is afforded the same three options as his regimental commanders: to defend, to counterattack, or to withdraw to defensive positions along the divisional final interception line while delaying the enemy's advance. Upon the division's withdrawal behind the divisional final interception line, the army commander then assumes

control of the mobile defense. This "stepping back" process continues until the purpose of the mobile defense is achieved.

4-120-4-125. *Reserved.*

SECTION IV-RETROGRADE OPERATIONS

4-126. Chinese doctrine stresses that the overall aim of retrograde operations is to create a more favorable situation for the initiation or resumption of the offensive. Retrograde operations are employed by the Chinese in both the offense and defense, either voluntarily or as a result of enemy pressure, to preserve their forces and to gain or maintain the initiative.

4-127. Retrograde operations fall into three categories:

- a. *Withdrawal.* An operation, either voluntary or as a result of enemy pressure, in which a force in contact disengages from the enemy.
- b. *Delaying action.* An operation in which a force under enemy pressure trades space for time. The Chinese fight a delaying action only when the enemy force has the initiative and they are unable to fall back in any other way.
- c. *Retirement.* A voluntary movement to the rear by forces not in contact with the enemy.

4-128. *Purpose.* Retrograde operations are undertaken for the purpose of accomplishing one or more of the following:

- a. Maintain the integrity of one's own forces.
- b. Harass, exhaust, resist, delay and inflict punishment on the enemy.
- c. Draw the enemy into an unfavorable situation.
- d. Disengage from combat.
- e. Gain time without becoming decisively engaged.
- f. Permit the use of elements of a force elsewhere.
- g. Avoid combat under undesirable conditions.

4-129. Whenever possible, retrograde operations take place at night. If the Chinese are forced to conduct a retrograde operation by day, they employ smoke to screen their movement. Retrograde operations are covered by intense artillery and air strikes and may be preceded by local counterattacks.

The Withdrawal (see figure 12)

4-130. The withdrawal is initiated when units in contact with the enemy are ordered to disengage and begin their movement to the rear. The division commander issues a very detailed plan which covers the following actions:

- a. Small parties from all subunits are sent out to reconnoiter and plan the new defensive positions or assembly areas prior to the start of the withdrawal.
- b. Field trains, nonessential supplies, equipment and personnel are sent to the rear.

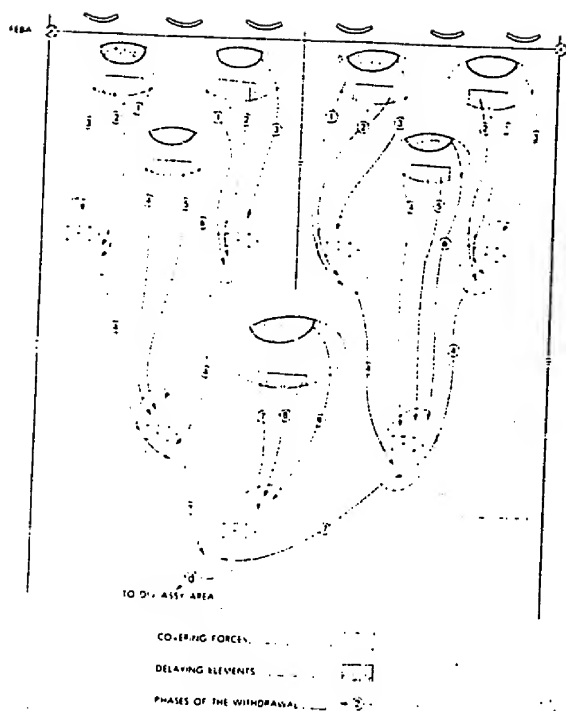


Figure 12 The Withdrawal

- c. Covering forces, normally consisting of no more than one-third of a unit's total strength, are formed from the unit's second echelon at all levels to cover the withdrawal.
- d. In addition, delaying elements are left behind in their defensive positions to simulate continued defensive operations and to protect the withdrawal of their parent unit.

4-131. *Conduct of the Withdrawal.*

a. All companies along the FEBA, less their delaying elements and covering forces, move to assembly areas in the rear (phase 1). In addition to the delaying elements and covering forces, the withdrawal is covered by the battalion's second echelon; the latter also covers the subsequent withdrawal of company covering forces (phase 2) and company delaying elements (phase 3) to the assembly areas. As the assembled companies proceed to battalion assembly areas, the battalion second echelons, less delaying elements and covering forces, disengage and withdraw (phase 4). They are covered by fires of their own delaying elements and covering forces and the fires of the regimental second echelon. Disengagement and withdrawal of battalion covering forces (phase 5) and delaying elements (phase 6) complete withdrawal of the regimental first echelon. After the battalions initiate movement to regimental assembly areas, the regimental second echelon disengages and withdraws in a similar manner (phases 7, 8, 9) to its assembly area and, on division order, proceeds to the division assembly area (phase 10) under covering fires of the division second echelon.

b. Following the successful arrival of the regiment at the division assembly area, the division's covering force is withdrawn. The withdrawal is protected by rear and flank guards formed from the army's second echelon. They occupy defensive positions astride the withdrawal routes before the main body of the division begins to move.

c. The main body usually withdraws in march column as quickly as possible to its new defensive positions without occupying intermediate positions.

Delaying Action

4-132. While the Chinese carry out delaying actions similar to those of other armies, they do not consider they are fighting a delaying action *per se* unless the enemy has the initiative and is exerting such pressure that the Chinese have no other way by which to fall back.

The Retirement

4-133. The Chinese execute a retirement when they wish to avoid combat. If the forces carrying out the retirement are in contact, the initial phase of the operation is in fact a withdrawal. After contact with the enemy is broken, the retirement becomes a tactical march away from the enemy.

4-134-4-137. *Reserved.*

SECTION V--AIRBORNE OPERATIONS

4-138. The PRC's airborne/air transportable forces are thought to consist of three airborne divisions located in Wuhan Military Region and are part of the PLA's strategic reserve. Airborne forces are an integral part of the PRCAF, not of the Army.

4-139. Chinese doctrine envisages the bold use of airborne troops, although the limited numbers and types of transport aircraft and helicopters available are restricting factors. Airborne operations include:

- a. *Parachute Operations.* Carried out by paratroopers and followed, if required, by air-landed troops trained and equipped for air transportable operations.
- b. *Air Transportable Operations.* Limited operations to quickly reinforce border areas or to maintain internal security within the PRC. In addition these specially trained air transportable troops could be used in operations to countries peripheral to China.
- c. *Helicopter-Borne Operations.* Currently, due to lack of helicopters, only extremely limited operations can be carried out. This capability is expected to improve, however, as more helicopters become available.

Parachute Operations

4-140. *Roles.* The Chinese are expected to use their airborne forces in the following roles:

- a. The seizure of important areas, routes and crossings in advance of major thrusts or to protect the rearward movement of Chinese forces.
- b. Sabotage missions against nuclear delivery means, support units and guidance equipment.
- c. The disruption of troop control, movement and logistic support by operations against headquarters, communications centers and rear area installations.
- d. The support of amphibious landings. (This is discussed in the next section, paragraphs 4-151-4-156.)
- e. Assistance to guerrillas.
- f. Internal security missions.

4-141. *Size of Force.* The Chinese possess the capability to conduct up to regiment-size airborne operations against objectives within a 500-nautical-mile radius.

4-142. Organization of an airborne division is shown in appendix G.

4-143. *Equipment.* The division inventory is similar to that of a normal infantry division except that it has no tanks and only limited artillery, antitank and antiaircraft weapons.

Types of Operations

4-144. Parachute operations are divided into the following categories:

a. *Strategic*. Operations involving the use of only one or possibly two airborne divisions in special circumstances such as:

(1) The seizure of airbases, seaports or islands of strategic importance.

(2) In support of deep penetrations following a breakthrough of the enemy defenses.

(3) The holding of vital terrain features in the case of a major invasion of the PRC.

b. *Tactical*. Operations of regiment or battalion size on the main axis in support of an army group or army offensive, timed to allow ground forces to link up with the airborne troops within 1 to 3 days.

c. *Special Purpose*. Operations by parties of up to company strength in any area with the tasks of sabotage, disruption of control and rear service operations, and in support of guerrillas.

Conduct of Operations

4-145. Little is known about the manner in which the Chinese carry out their airborne operations but it is assumed that for the most part they will follow Soviet methods.

4-146. A division uses about four to six drop zones (DZ's) and a regiment uses one or two. Reserve DZ's are normally selected for use in an emergency or by subsequent waves. DZ's are about 3 to 4 kilometers in size and if circumstances permit may be on or outside the objective itself.

4-147. *Landing*. The fly-in is protected by fighter cover. All available fire support is used to neutralize enemy air defense weapons along the flight path. Drops will normally be made at night.

4-148-4-150. *Reserved*.

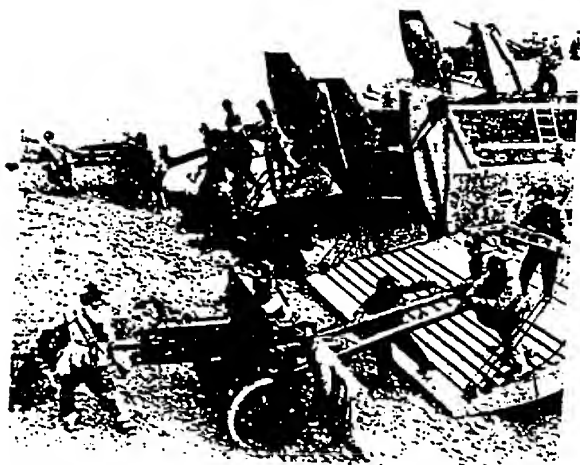
SECTION VI--WARFARE UNDER SPECIAL CONDITIONS

Amphibious Operations

4-151. The PRC conducted its first joint amphibious operation in 1955 against I Chiang Shan Island about 17 miles off the East China coast. Since that time, amphibious training has had an important place in the training of units stationed in or near China's coastal areas.³

4-152. At present, the PRC possesses the capability to conduct an amphibious operation involving three infantry divisions, their organic armor, artillery and those personnel and equipment that would be required during the assault phase.

³The successful seizure by the PRC of the Paracel Islands in January 1974 is the most recent example of China's ability to conduct amphibious operations.



Artillery is brought in as soon as the initial landing as possible to support factors ashore.
These are 57 mm antitank guns - 2455

of an amphibious operation. In addition to naval amphibious ships and craft, merchant shipping and motorized junks would be used to support the effort.

4-153. *Amphibious Units.* The PRCNA is believed to have a number of units which have been trained in amphibious operations. During an amphibious assault, these forces, organized into regiments, would spearhead the landing, conducting beach reconnaissance, clearing obstacles, and making the initial assault.

4-154. *Types of Operations.* Amphibious operations will necessarily take place within range of shore-based aircraft and will aim to:

- a. Seize and secure a beachhead on a hostile shore from which large-scale ground operations can be initiated.
- b. Assist the advance of ground forces by attacking the sea flanks of an opposing force.
- c. Seize and secure vital areas such as islands and straits.
- d. Conduct raids and reconnaissance.

4-155. *Scale.* A division conducting an amphibious operation is divided into two echelons: an assault echelon, consisting of two reinforced regiments, and a support echelon, consisting of the remainder of the division's forces.

4-156. *The Assault Landing.*

a. *Airborne.* An amphibious landing may be preceded by, or made simultaneously with, a parachute- or helicopter-borne assault onto or near the beachheads.

b. *Night.* The approach is normally made at night or under other conditions of poor visibility. Amphibious landings are normally made at night or at first light.

c. *Frontages.* Frontages are similar to those for the attack described in section I of this chapter 4. Each battalion is allocated one landing point and these are at least 1 kilometer apart.

d. *Control.* Chinese doctrine prescribes a unified command for amphibious operations. The commander of such an operation is usually a senior army commander who is responsible for the execution of the operation. In addition, two subordinate forces commanders are designated and charged with specific responsibilities during each phase of the operation.

(1) *Naval Landing Commander.* He is a senior naval officer responsible for embarkation, movement by sea, and landing ground troops on the hostile shore. During this period of the operation he is in command.

(2) *Landing Force Commander.* As soon as adequate communication and command facilities have been established ashore, command passes from the naval landing commander to the landing force commander. He is charged with direct command of ground force troops during the preembarkation period, coordination of ground forces during the assault, and command of tactical operations ashore to seize and secure the beachhead.

e. *Tactics and Fire Support.* The tactics and fire support of an amphibious landing are similar to those employed by both Soviet and



Cold weather warfare. In the Sino-Soviet conflict of 1962, the Chinese proved themselves well adapted to cold weather high altitude fighting.

Western armies. Coordinated air and naval gunfire provides continuous fire support aimed at neutralizing or destroying enemy defenses. Artillery on nearby land masses may also be integrated into the overall fire plan.

Cold Weather Warfare

4-157. Special attention is given to winter warfare training in the PRCA. The Chinese believe that large-scale ground operations are possible in extreme climatic conditions.

4-158. Influence of Climatic Conditions.

- a. Eight to twelve inches of accumulated snow will retard the mobility of infantry, armor and artillery; over 12 inches of snow will cause extreme difficulties in their movement.
- b. Heavy snowfalls require excessive troop labor to clear essential roads and maintain fortification.
- c. Snow makes troop movement concealment difficult.
- d. Extreme cold has a direct effect on troop stamina and on their equipment.
- e. Subzero temperatures radically alter the tactical significance of certain terrain features like rivers, lakes, and swamps.

4-159. *Tactical Concepts.* Chinese tactical operations in winter do not differ greatly from those conducted under less severe conditions. Cold weather conditions increase the importance of shelters, hinder the construction of defenses, make rivers, lakes and swamps passable, and restrict air support.

4-160. Chinese doctrine emphasizes the need for more and continuous reconnaissance to locate the enemy's main strength and flanks, the direction of his movement, and the disposition of his nuclear weapons. In addition, particular attention is paid to weather reconnaissance, the depth of snow on the avenues of approach and the thickness of ice on water obstacles. The reconnaissance is conducted by small units on skis or in vehicles capable of cross-country movement.

4-161. *Organization.* No special organizations are known to exist for cold-weather warfare although some specialized equipment undoubtedly is issued to units.

4-162. *The Offensive.* In cold-weather warfare, assembly areas are located closer to the enemy than at other times to lessen approach marches and thereby minimize fatigue and the possibility of frostbite. Heated shelters are provided in assembly areas and covered shelters in attack and, if possible, in assault positions.

4-163. *Defense.* The FEBA is selected making the maximum use of natural climatic obstacles difficult to overcome in winter. All cover available to enemy in front of the FEBA is destroyed by demolition or covered with planned artillery fire. Holes are made in frozen lakes or rivers and the ice is mined. Obstacles, including minefields covered by fire, are constructed in gaps between a system of strongpoints. No more than a third of fighting personnel occupy firing positions at a time.



Urban militia members being trained to fight in built-up areas



W. L. H. H. H. H. H.

Fighting in Built-up Areas

4-164. *Attack.* When encountering a town that must be seized during the advance, the commander normally strives to capture it from the line of march before the enemy can establish elaborate defenses. The advance guard moves into the town, seizes important objectives and holds them until the main body arrives. When an attack from the line of march fails, the commander establishes a blockage and initiates preparations for a deliberate attack on the town. The deliberate attack is preceded by an artillery bombardment supported by air strikes. It normally consists of several converging attacks initiated in different sectors of the town to split the enemy defenses into several segments for subsequent piecemeal destruction.

4-165. *Defense.* The defense of a town or city is organized for all-round defense based on inner and outer defense zones. Inner defense zones are established throughout the entire town; their number and size are dependent on the size of the town and the overall defense plan. Each zone is based on a system of defense centers each of which consists of two or more strongpoints. The forward edge of the first inner defense zone is normally placed on the town's outskirts. Outer defense zones are established on the approaches to the town. Their number depends on the terrain and available manpower and materiel; frequently these positions are merely combat security positions.

Mountain Warfare

4-166. Chinese combat forces are trained for operations in mountainous terrain. The difficulties imposed by terrain, however, often dictate the use of special equipment. At extremely high altitudes, as along the Sino-Indian border, acclimatization is necessary.

4-167. *The Offensive.* The usual type of offensive maneuver is a frontal attack of the enemy with regiment- and or battalion-size units operating on independent axes along roads, valleys and ridges in conjunction with enveloping movements across adjacent mountains. Enveloping forces are employed to seize commanding heights, passes and road intersections, on the flanks and rear of the enemy position while the main force carries out the frontal attack. If the enveloping forces succeed in making the enemy withdraw before the main frontal attack is initiated, the main force will immediately carry out a pursuit to prevent the enemy from occupying another defensive position.

4-168. *Defense.* The defense is organized as a series of strongpoints on the commanding heights, each mutually supporting and capable of all-round defense. Gaps are covered by patrols. In the event of strongpoints being surrounded, they will continue to fight on without any thought of withdrawal. Constant observation and patrolling are carried out to prevent outflanking movement.

4-169. *Fire Support.* Fire support for Chinese forces in mountainous country does not differ greatly from the support afforded in offensive and defensive operations under normal terrain conditions.

4-170. *The Use of Armor.* Every effort is made to employ tanks in areas where the enemy will not expect them: in the defense, tanks are sometimes deployed in forward infantry strongpoints.

Jungle Warfare

4-171. Combat forces assigned to areas where jungle terrain predominates receive specialized training in the conduct of jungle operations. The organization, equipment, and tactics of these forces are often tailored to offset the adverse effects of the terrain and the monsoon climate.

4-172. *Terrain.* Mountainous jungle terrain prevails in southern China, primarily in Yunnan and Kwangsi Provinces, and in Burma, Thailand, Laos, Malaysia, Cambodia, and Vietnam. These regions are characterized by rugged terrain, dense first- and second-growth jungle, small scattered villages and cultivated areas, numerous streams and marshes, few highways or rail lines, and networks of unimproved trails.

4-173. *Organization and Equipment.* Mountainous jungle terrain has a leveling effect on the relative capabilities of opposing forces since it limits sharply the employment of armor, heavy artillery, and vehicular transport, and restricts aerial observation. The standard Chinese infantry division would probably be stripped of its tank/assault gun regiment and heavy artillery so as to resemble a light infantry division. The lack of heavy vehicles and equipment in a jungle environment is a factor in the PRCA's favor. Accustomed to movement by foot, Chinese forces are capable of moving with relative ease even over areas where no trails exist. The lack of roads poses no problems for light artillery units or for logistical elements which use animal or human resources.

4-174. *Tactics.* The tactics employed by the PRCA in a jungle environment stress taking full advantage of natural cover; extensive use of infiltration, ambushes, and guerrilla warfare; secrecy and speed of movement; continuous reconnaissance; and well-coordinated planning. Maintaining control over his forces is the primary problem confronting a commander because of the restrictions on movement and communications imposed by the terrain.

4-175--4-180. *Reserved.*

CHAPTER 5 LOGISTICS AND PERSONNEL

SECTION I--LOGISTICS

Overview

5-1. The continuing effort to modernize China's armed forces has required concurrent strengthening of logistical support at all levels. Considerable improvement is apparent when current supply and service procedures are compared with those of the Korean War era, when China entered that conflict with little in the way of a formalized system for the logistical support of its forces. Although there are inherent weaknesses in organization and equipment maintenance at the operational level, the PRC's logistical system, especially its supply, transportation, and medical support functions, is considered well adapted, at least in theory, to the military establishment it is intended to support.

5-2. Chinese logistical doctrine has been influenced by the following:

- a. Experience gained during the Korean War.
- b. Influx of Soviet doctrine, training, and equipment in the 1950's.
- c. Lessons learned from the North Vietnamese support of their forces and the Viet Cong in the face of enemy air supremacy.
- d. Experience acquired in moving troops and supplies during breakdown of communications caused by the Cultural Revolution.
- e. Redeployment of troops and equipment to the north in response to the Soviet threat.

5-3. *Strengths and Weaknesses.* The main strengths and weaknesses of the Chinese logistical system are:

a. *Strengths.*

- (1) The PRC has the ability to mobilize civil resources, including mass manpower, to support a military effort.
- (2) The individual Chinese soldier and his familiarity with the conditions simplify supply problems.
- (3) The minimum required for efficient operation and personal needs and comforts are few.
- (4) The system is prepared to improvise necessities that the enemy cannot provide.

Chinese mainland, a less than adequate
deficiencies in defense-related industries
ability.

remains untested in prolonged modern
inter-echelon logistical officers, evident in



Chinese soldiers manufacturing land mines



Various types of PRCA transport

5-4. *Principles.* The following principles govern logistical activities in the PRCA:

- a. *Centralized Planning.* Logistical planning is centralized in specialized staff elements at all echelons of command.
- b. *Command Control.* Within each echelon, logistics is regarded as a function of command.
- c. *Standardization.* Considerable effort has been made to standardize weapons and equipment in order to simplify and facilitate maintenance, repair and supply of spare parts.
- d. *Distribution Forward.* The impetus of supply and service support is from higher to lower echelon, with transport and delivery responsibility resting with the higher echelon.
- e. *Rail Transport.* Rail transport is used to the maximum to conserve stocks of motorized transport and POL reserves.
- f. *Salvaged and Captured Material.* During combat, recovery, spot repair, reuse of equipment and the collection and processing of captured material are practiced.
- g. *Priorities.* Supplies are classified into four categories and priorities are established as follows:
 - (1) Ammunition.
 - (2) POL.
 - (3) General (Quartermaster, Medical, Signal, Engineer, Chemical, Ordnance).
 - (4) Rations.

5-5. *Division of Responsibilities.* The General Rear Services Department promulgates logistical policy for China's armed forces and supervises its implementation. At each successive level down to regiment, a rear services department serves as the supply and service component of the commander's military staff. Rear services departments coordinate and control all logistic support activity including procurement and storage of supplies, medical and veterinary care, transportation, quartering, finance and salvage.

- a. *Army.* Within the combat zone, the army formation is the key unit of logistic operations and management. The army rear services command is formed to carry out the logistical responsibilities. The commander of the army rear services command controls most service troops assigned or allocated to the army, except engineer and signal. He is responsible for the supply and service support of the divisions, army troops, and reinforcements allocated to the army; for planning and supervising all logistical operations in the army rear area; and for liaison with rear services departments of higher, adjacent and lower commands.
- b. *Division.* The division rear services department develops all logistical plans relative to division operations and informs the army rear services command of division requirements. Bulk supplies and replacements are received from army and are broken down according to subordinate commands' requirements.



Movement of supplies is by motorized transport whenever possible

System of Supply (see figure 13)

5-6. Supply is by forward distribution. Supplies move from factories, warehouses, or arsenals directly to regional depots, then to army depots, via railway or motorized transport. From army depots, supplies reach division supply points by transportation organic to the army. Supplies are then normally distributed to regiments from division supply points—a main base and three mobile bases—by division transportation. On occasion, supplies are sent directly to regimental dumps to avoid unnecessary handling. Regimental supply points are little more than distributing points where incoming supplies are broken down for distribution to subordinate units. Regimental transport moves supplies to battalion distribution points, where they are further broken down for companies and moved forward by animal-drawn carts, pushcarts, pack animals or porters. Rear services departments at all levels from regiment upwards may provide additional motorized transport. PRCAs transport resources may be further augmented by motor transport, pack animals or porters contracted or requisitioned from the civilian sector.

5-7. *Daily Resupply Requirements.* The following table lists the average daily resupply requirements (in short tons) of a PRCA standard infantry division at varying levels of combat:

Level of Combat	Ammunition	POL	Supplies	Rations	Total Requirement
Heavy Combat	450	10	20	20	500
Moderate Combat	250	10	20	20	300
Light Combat	100	10	20	20	150
Average Requirement (Prolonged Period)	150	10	20	20	200

Ammunition

5-8. Army, division, and regimental rear services departments maintain ammunition supply dumps. Ammunition stocks to be maintained at each echelon are specified by higher headquarters. Resupply from army to division, from division to regiment, and from regiment to battalion is normally accomplished by organic motorized transport. Resupply of ammunition from battalion forward may be accomplished by human, animal or motor transport depending on the distances involved, the terrain, and the combat situation. During combat, resupply of ammunition is facilitated by the establishment of temporary ammunition dumps and frequent shifting of supply points. The stockpiling of ammunition in forward areas is a common procedure.

5-9. The PRCA uses the term "basic quantity" as the measure of ammunition supply. A basic quantity, similar to the Soviet "unit of fire," is the number of rounds to be maintained for each weapon within a unit. It is an arbitrary amount used for accounting and planning purposes, although it does have some relation to combat requirements. Ammunition is requisitioned by units or allocated for an operation in multiples of the basic quantity. Under normal conditions one basic quantity is maintained for all weapons with the units of the division; another one-half to one is held in reserve by the division rear services

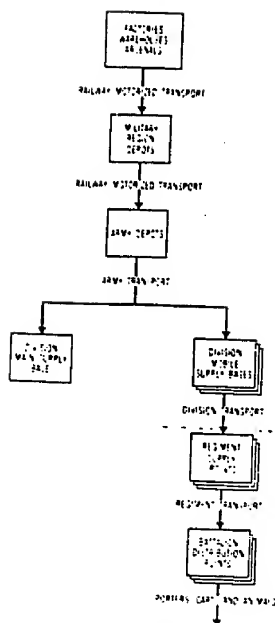


Figure 13 System of Supply



POL handling equipment.



Cooking in the field.

department. In addition, a reserve of a least one, if not more, basic quantity is held at army level. Typical basic quantities for selected weapons are indicated as follows:

- | | | |
|-----------------------------|---|------------|
| a. Type 59 medium tank | - | 34 rounds |
| b. 122-mm howitzer, Type 53 | - | 80 rounds |
| c. 82-mm mortar, Type 53 | - | 120 rounds |
| d. 7.62-mm carbine, Type 56 | - | 100 rounds |

POL

5-10. The Chinese probably follow the Soviet practice of measuring fuel in "refills." One refill is the quantity required to fill the internal and external tanks of all vehicles in a unit, plus lubricants allocated at 10 percent of the fuel required. Normally, the division carries from two-and-a-half to three refills: one in the fuel tanks of the vehicles, one-half each at battalion level and regimental level, and one-half or one at division level.

5-11. *Delivery.* Reserve POL stocks are dispersed in remote areas. These reserve sites are well hardened against air attack and are rail-served. Military region depots maintain peacetime stocks equivalent to wartime front or theater area stocks. Army, division, and regiment rear services departments maintain POL dumps. Most fuels and lubricants are transported and stored in 55-gallon drums and 5-gallon cans. Division vehicles haul POL forward from division POL dumps to regimental dumps. Regimental vehicles, in turn, transport POL forward to battalion supply dumps, as required. Within those battalions having organic transport, POL is distributed at the battalion POL point.

5-12. *Captured Stocks.* The Chinese will supplement normal POL with captured stocks. It is unlikely, however, that they will rely on captured stocks in their logistic planning.

Rations and Water

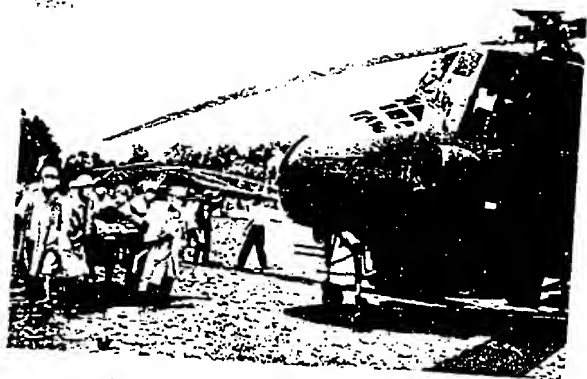
5-13. *Rations.* The PRCA issues three kinds of rations: the standard ration, the combat ration, and the emergency ration.

- The standard ration consists of rice, flour, pork, fish, eggs, soybeans, vegetables, edible oil, and salt, sugar, and other condiments. The individual soldier is issued 2 to 3 pounds of food per day. Most of the fish, pork and vegetables are produced locally by individual units for their consumption.
- The combat ration is spartan consisting of dried rice, dried fried wheat, or a baked mixture of soybeans, corn, millet and kaoliang to which water is added before eating. Prior to a major operation, each soldier is issued the equivalent of from 5 to 7 days' rations.
- The emergency ration is a compressed, rectangular biscuit made of flour, salt and oil. Each soldier carries about 12 of these biscuits in addition to his combat ration.

5-14. Under simulated or actual combat conditions, companies, battalions, and regiments each store the equivalent of 7 days' supply of rations. Divisions maintain 10 days' supply, and armies from 1 1/2 to 1 month's supply. Rations are delivered from division to regiment, and from regiment to battalion and



Litter bearers evacuating injured soldier.



Air force helicopters may be used to assist in medical evacuation.

company, or direct to forward positions. During troop movements in peacetime, rations are often purchased from local communes.

5-15. *Water.* The Chinese possess the equipment which enables them to supply fresh water in the field as well as the capability to test and treat contaminated local water supplies. Water supply is the responsibility of the engineer section of a given unit; water purification is the responsibility of the medical section.

Medical

5-16. Medical departments of rear services units supervise medical evacuation and designate routes and evacuation centers. Litter bearers are normally used at battalion level and below. Ambulances and/or litter bearers are used at the regiment and division levels, although supply vehicles may also be employed.

5-17. *Battalion.* Soldiers wounded in combat are attended by rifle company first aid men at company collection centers where first aid is administered and field dressings are applied. Evacuation of casualties from the company collection center to the battalion aid station is usually by litter bearers. At the battalion aid station, wounds are rebandaged, bones are set, injections are given, and the more seriously injured are prepared for evacuation to regimental field dressing stations (FDS). Battalion aid stations are usually located about 1,000 to 2,000 meters from the frontline.

5-18. *Regiment.* Regimental ambulances or litter bearers collect casualties from battalion collection centers (co-located in the battalion aid station) and transport them to regimental field dressing stations located 4 to 8 kilometers from the frontline. Emergency surgery may be performed at this level if the patient's condition makes further movement inadvisable. Otherwise, treatment at this level is limited to classifying wounds, stabilizing patients and, if required, preparing patients for evacuation to field hospitals.

5-19. *Division.* Ambulances from the division medical battalion pick up wounded at the field dressing station's collection center and evacuate them to mobile hospitals at division level and to army field hospitals. The mobile hospitals provide limited medical care, including minor surgery. The field hospitals perform major surgery and treat patients not requiring long periods of hospitalization. Serious cases requiring special care, special surgery and/or long periods of convalescence are evacuated to regional or base military hospitals found at provincial or military district level. Personnel who have recovered from wounds or injuries may be returned to duty by any medical facility in the chain of evacuation.

Recovery and Repair

5-20. *General.* The PRC's current system of recovery and repair is believed to be based largely on the Soviet system. The shortage of technicians, the scarcity of spare parts, and the limited number of repair facilities were often cited in the past as indications of the PRC's weakness in the area of recovery and repair. While simple repair is encouraged at the unit level and fabrication and cannibalization are practiced, these deficiencies are believed to have been overcome and the PRC now can recover and repair equipment under combat conditions. Mobile field repair teams are found at many units of regiment level and above.



Preventive maintenance is stressed at all levels. Howitzers are the 122 mm type 54.



An artillery unit performing minor repair



Squad receiving instruction on repair of motor vehicles ...

5-21. *Maintenance.* Appreciation for and understanding of preventive maintenance are continually stressed at all levels in an attempt to decrease the number of equipment breakdowns and to lighten repair workloads. Upgrading the technical proficiency of mechanics and operators through both special and on-the-job training is also encouraged.

5-22. *Recovery.* Battlefield recovery of both friendly and enemy material is considered of prime importance. Every unit is responsible for the collection and evacuation of all useable weapons or equipment within its area. When the collecting unit cannot handle the evacuation, specially designated recovery teams from higher headquarters will move the material to the rear where it is processed. At army and division, each service maintains a collection point for salvage material at rear area supply installations. Below division, a single collection point is established for salvage of all classes of material.

5-23. *Repair.* The Chinese have three categories of repair: minor repair, medium repair, and major repair.

a. Minor repair includes periodic checks, replacement of subassemblies, and fabrication of spare parts. It is normally accomplished at regiment level.

b. Medium repair includes cannibalization, salvage, and patching as well as minor repair. Medium repair is usually performed at division and army levels.

c. Major repairs are normally carried out at military region level in large fixed-shops or salvage-and-rebuild installations. Here complete equipment rebuild is accomplished. Material judged not salvageable is cannibalized for parts.

5-24. Echelons of repair are determined by the capabilities of the facilities at any particular level. Repairs are made at the lowest possible echelon to reduce the time lost in evacuation. In addition, because of a lack of recovery equipment, repair is attempted at the point of disablement, although such repair is often hampered by the lack of mobile repair teams. The rear service department at both regiment and division headquarters has an ordnance repair section responsible for the maintenance and repair of all items the PRC considers ordnance. Signal maintenance and repair are performed by the signal battalion at division level and by the signal company at regiment level.

Reinforcement

5-25. The PRC's reinforcement doctrine is probably modeled after that of the Soviet Union. Reinforcement would likely be by complete regiments or divisions taken from the strategic reserve. Because of the PRC's limited transportation system, large-scale and rapid movement of reinforcements would most probably be accomplished by railway, although other modes of transport (e.g., motorized transport and aircraft) might conceivably be used as well.

Prisoners of War

5-26. The collection, interrogation, safeguarding, processing and utilizing of prisoners of war are functions of the army Political Department's enemy affairs section. The enemy affairs section is normally assisted by a platoon-size guard unit which operates the army POW enclosure.



The Chinese soldier is a hard and winning fighter with an ability to improvise under a variety of conditions. He is one of the most highly motivated soldiers in the world and can endure extraordinary hardships.



Two "fighters" of the PdCA

5-27. The procedure for handling POW's is as follows:

- a. Prisoners are evacuated from company areas to the rear immediately after their personal belongings are inventoried and weapons, documents and military equipment are confiscated. Prisoners may be retained at battalion level, but for no more than 1 day. Interrogation is not normally conducted at company or battalion level, though it may occur.
- b. A prisoner receives his first formal interrogation at regiment level, where he encounters personnel from the enemy affairs section. Interrogation at regiment is brief, usually aimed at gaining information of immediate tactical importance.
- c. Interrogation at division and army levels is more thorough, usually incorporating political indoctrination. Coordinated interrogation and indoctrination of POW's continue throughout the period of activity. Prisoners are evacuated from the army enclosure usually within a week of their capture.

5-28. Chinese doctrine stresses adherence to conventional rules of warfare. It may be assumed that regulations governing the treatment of POW's are similar to those of other armies. Food, clothing and medical treatment provided will be of a standard comparable to that of the Chinese themselves.

5-29 - 5-33. *Reserved.*

SECTION II - THE CHINESE SOLDIER

Profile of the Chinese Soldier

5-34. The Peoples Republic of China comprises diverse ethnic groups and languages which give it a multinational, multicultural character reflected, in turn, in all its institutions, including the armed forces. It is difficult, therefore, to describe the character of the average Chinese soldier.

5-35. The overwhelming majority of soldiers in China are drawn from the peasant-worker class, which constitutes over 80 percent of the population. The average soldier is a hard and willing worker and is able to survive and improvise under a wide variety of conditions. He has sufficient education to read and understand simple training manuals. While he may fall below Western standards in literacy and technical proficiency, he surpasses the average Western soldier in his ability to bear extraordinary hardships. His physical condition is considered excellent. Pervasive and continuous indoctrination from an early age has instilled in him national pride and party loyalty. He has a strong sense of obedience and under competent leadership will attempt to carry out his mission, regardless of obstacles or consequences. The Chinese soldier is considered one of the most highly motivated soldiers in the world today. The prominence and respect which the armed forces have enjoyed in recent years have enhanced the prestige and social standing of the soldier and have overcome the traditional contempt for military life of earlier eras. It is a proud family whose son or daughter is chosen for service in the PLA.

Rank

5-36. In 1965 all military ranks in the armed forces were abolished in an attempt to close the gap between officers and enlisted men. Now only one basic distinction is made in the PLA: that between "commanders" (officers) and "fighters" (enlisted men).

Morale

5-37. A standard of living well above that of the average civilian, special privileges, and an enormous gain in social status have all contributed to what is considered to be generally good morale in China's armed forces. However, morale often tends to rise and fall with fluctuations in the economy and the political climate.

5-38. How the Chinese soldier would behave under conditions of modern warfare today is unpredictable. The Chinese "volunteers" who crossed the Yalu into Korea in October 1950 were highly motivated, highly disciplined troops, instilled with the belief that their technical inferiority could be offset by pitting superior numbers against superior firepower. Constrained by fixed battle lines and confronted by growing casualties, the Chinese realized that masses and sheer determination were no match for a professionally trained, well-equipped, and technologically superior enemy. Chinese POW's confirmed that combat morale, discipline, and political control crumbled as a result of the adverse conditions of modern combat. Whether or not the "Korean experience" would repeat itself today is debatable.

Conscription

5-39. The PRC's conscription law stipulates that all male citizens who attain the age of 18, irrespective of nationality, race, occupation, social background, religious belief, or education, have the obligation to serve in the armed forces. "Counterrevolutionary" elements, landlords and bureaucratic capitalists, and those who have been deprived of political rights are not qualified to serve. The sick or disabled and "compassionate exemptees" (persons who provide sole support for a family, or a family's only son) may be exempted or deferred. Of the estimated 9 million males reaching induction age annually, some 60 percent fail the medical examination while an additional 20 percent are eliminated following an examination of their political backgrounds. Further physical and political testing results in no more than 10 percent of those initially eligible being actually inducted into the PLA. Induction normally takes place during the slack period in agriculture, generally from November to February.

Terms of Service

5-40. Since early 1974 the duration of military service for the Chinese conscript has been 3 years in the ground forces, 4 years in the air force, and 5 years in the navy.

5-41. Prior to his release, a soldier possessing certain technical skills or engaged in special duties may volunteer for extended service. Acceptance for extended duty is based on certain criteria: the need of the soldier's unit; the soldier's past performance and technical proficiency; the soldier's political thinking; and his



Barrage firing



Reception of the American Military in Japan, 1945



Marksmanship training

physical condition. It is estimated that personnel on extended duty comprise about 20 to 25 percent of the PLA's total strength.

Demobilization

5-42. Upon completion of military service, the overwhelming majority of soldiers return to their homes and their civilian positions be it on a commune or in a factory. All are required to join local militia organizations. In Peking's own words, "these militia organizations are a great military reserve of the militia and whose members have been well-trained militarily. Although China does not have a formal reserve system in the Western sense, it is considered to have an effective military manpower reserve pool in the militia. However, little is known of the regulations and procedures governing the mobilization of these "reserves" in the event of war.

Training

5-43. *Preconscription Training.* While the PRC has no formal preinduction training all Chinese youths receive rudimentary drilling and instruction in the communes and schools. In addition, the "everyone a soldier" movement has provided young people with an ideological orientation for future military service.

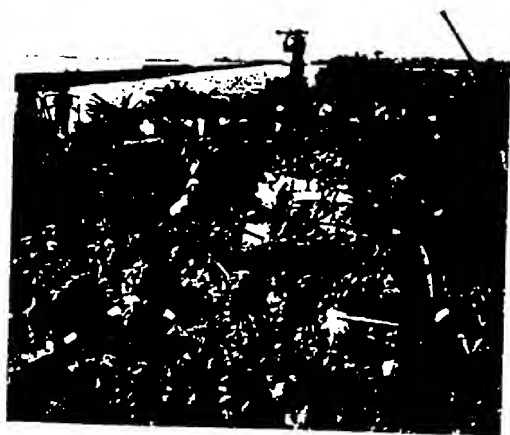
5-44. *Basic Training.* Basic training usually last 3 months and normally takes place at regimental level in temporarily formed training units. Basic training is rudimentary, consisting largely of political lectures, drill and marching, use and care of individual weapons, bayonet practice, and some tactics and fieldcraft. Following basic training the soldier is integrated into a regular unit where he receives advanced individual training. From this point, training becomes the responsibility of the service or arm to which the soldier is assigned.

5-45. *Daily Training Program.* The basic idea behind the daily training program is to keep the conscript busy from dawn to dusk. A typical daily training program might be as follows:

ACTIVITY	From	To
Reveille		0600 hours
PL Drill	0615 hours	0700 hours
Washing Bed Making	0700 hours	0715 hours
Morning Meal	0715 hours	0800 hours
Training	0800 hours	1200 hours
Midday Meal Rest	1200 hours	1330 hours
Training	1330 hours	1730 hours
Evening Meal Rest	1730 hours	1900 hours
Political Training	1900 hours	2000 hours
Individual Tasks/Study	2000 hours	2100 hours
Light Out		2100 hours

Conditions of Service

5-46. *Pay.* Officers receive a monthly salary whereas enlisted personnel are given a monthly "allowance" on the theory that soldiers are obligated to serve the state and should not be compensated for their services. This "basic pay" for



Most PPCTA units grow their food in their garrison areas.

both officers and enlisted men reflects the responsibility and authority of the position occupied and length of service. In addition to the "basic pay," soldiers stationed in remote areas of China (e.g., Tibet, Sinkiang), garrisoned on offshore islands, or aboard ships at sea receive an extra monthly allowance.

5-47. The following chart lists the estimated basic monthly pay for enlisted personnel in the PLA in 1973:

Years in Service	Position	Basic Monthly Pay	(U.S. \$ Equivalent)
1	Conscript		
2	Fighter	6 yuan	(\$3.06)
3	Deputy Squad Leader	7 yuan	(\$3.57)
4	Squad Leader	8 yuan	(\$4.08)
4+	Deputy Platoon Leader	10 yuan	(\$5.10)
		Increased by 5 yuan (\$2.55) each year after four years in service	

5-48. *Rations and Messing.* Rations in China's armed forces are considered superior in both quality and quantity to that of the average citizen. Most of the meats and vegetables are produced on unit farms. Following is an example of a typical daily menu in the PLA:

- Morning Meal. Rice, root vegetables, peppers, eggs, beans, tea.
- Midday Meal. Rice, soup, vegetables, fruit, noodles or bread, meat or fish, tea.
- Evening Meal. Rice or noodles, soup, root and green vegetables, peppers, fruit, meat or fish, tea.

5-49. *Leave.* The PLA has a very strict leave policy. Conscripts are not normally entitled to leave, except for compassionate reasons. After their initial year of service, all soldiers receive a minimum of 7 days' annual leave, with soldiers not accompanied by dependents eligible for 15 days' leave. Soldiers on extended duty are entitled to 15 days' annual leave during their first extended year; then 15 days leave every two years.

5-50. In addition to annual leave, 2-day holidays are celebrated on each of the following national holidays: Lunar New Year, Spring Festival, Armed Forces Day (1 August), and National Day (1 October).

Discipline

5-51. The *Three Main Rules of Discipline* and the *Eight Points of Attention* remain the bases for discipline within the PLA and are reiterated in chapter 3 of the *Internal Regulations*, promulgated 25 November 1975, outlining the conduct of soldiers.

- The Three Main Rules.
 - Obey all orders.
 - Do not take a single needle or piece of thread from the masses.
 - Turn in everything captured.

b. The Eight Points of Attention:

- (1) Speak politely.
- (2) Pay fairly for what you buy.
- (3) Return everything that you borrow.
- (4) Pay for anything that you damage.
- (5) Do not hit or swear at people.
- (6) Do not damage crops.
- (7) Do not take liberties with women.
- (8) Do not ill-treat captives.

5-52. *Punishments.* Following are the punishments within the PLA in ascending order of severity:

- | | |
|------------------------------|----------------------|
| a. Warning | by Company Commander |
| b. Admonishment | - Company Commander |
| c. Reprimand | - Regiment Commander |
| d. Expulsion from CCVI (CCP) | - Regiment Commander |
| e. Expulsion from the PLA | - Courts Martial |
| f. Imprisonment | - Courts Martial |
| g. Execution | - Courts Martial |

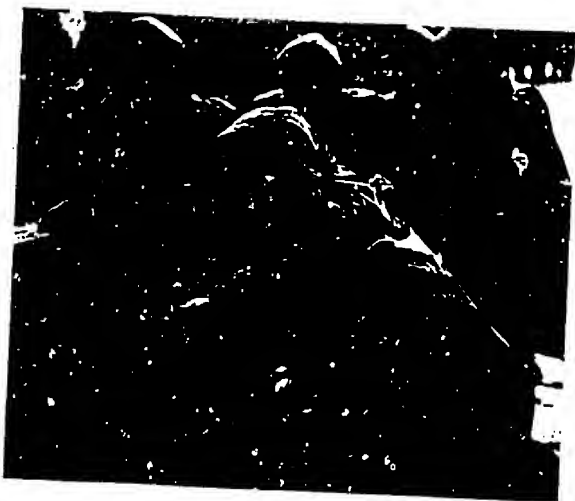
5-53. The general principle behind punishment in the PLA is that offenders be taught the error of their ways. Minor offenses (drunkenness, failure to care for equipment) are usually dealt with at company-level criticism meetings. These meetings are attended by the accused soldier's comrades and are presided over by the deputy commander of the company or the political officer. At the meeting the soldier confesses his crime and pleads to reform. The attendees discuss the nature of the offense and then decide on an appropriate punishment.

5-54. *Courts Martial.* Major offenses (murder, robbery) are brought before military region courts martial. It is the military court which has the authority to expel a soldier from service, sentence him to prison usually at hard labor, or order him executed. The exact composition of the court is unknown. It is normally presided over by an officer whose position equates with that of a U.S. brigadier general. There is neither a prosecutor nor defender. Since there is no known manual on military law equivalent to the U.S. *Uniform Code of Military Justice*, it is believed that military courts generally follow the same legal principles and procedures as do their civilian counterparts.

Day Rooms

5-55. Each company has its own day room, sometimes referred to as a leisure or reading room. This room is used by the soldiers in their free time and usually have ping-pong equipment, newspapers and periodicals, and a selection of approved books. These rooms are similar to the "Lenin Clubs" which were established during the early revolutionary period and which served as the center of all social and cultural life in the unit. Besides serving as a library and ping-pong parlor, the early Lenin Clubs often doubled as dining halls and classrooms.

5-56 5-60. *Reserved.*



The commander of an artillery unit assists his men in moving a heavy gun.

SECTION III - THE CHINESE OFFICER

Status

5-61. In keeping with the revolutionary tradition of close relations between officers and men and in an attempt to offset Soviet-sponsored "professionalism" which was allegedly challenging Mao's "proletarian military line," all ranks and insignia were abolished in mid-1965. The PLA returned to the pre-1955 practice of referring to officers (leaders or commanders) by job title or position (e.g., Company Commander) and referring to soldiers as fighters. Although the abolition of ranks was essentially one of several steps taken by the Chinese leadership to insure the PLA's political and ideological loyalty, in addition it demonstrated, at least theoretically, the equal status of officers and enlisted men in China's armed forces. The belief that equality between officers and men makes for a more efficient fighting force is preached to this day.

Officer Selection

5-62. The overwhelming majority of officers/commanders are chosen directly from the ranks. Selection criteria are based as much on ideological orientation as on proven military ability. The soldier possessing the right qualifications, as determined by his unit's party committee, could expect to reach the position of platoon leader within 5 years after conscription. Officer training is conducted at military region schools or academies. Most officers assigned to research or technical positions are trained at military technical institutes. Only a small percentage of officers in this specialist category, which includes all doctors, are commissioned directly from among college graduates. A few technical officers are selected from graduates of senior middle schools for advanced training at military technical institutes after a short period of service in the ranks. Officer training programs in civilian colleges are not known to exist.

Military Education

5-63. As described above, the military education of the majority of Chinese officers begins with the training the individual receives while in the ranks. Upon selection to officer status, an individual's military education is likely to include:

- a. Basic officer-type training at branch or service schools, or at technical institutes which are subordinate to the Military Region. Training at these schools can last up to 3 years and produces company-level officers.
- b. Intermediate-level training at schools referred to as "Military and Political Schools for Cadres." Also subordinate to the military region, these schools reportedly offer instruction to middle-grade officers (battalion regiment) in political philosophy, Marxist military thought, strategy, tactics, techniques and armaments. Length of schooling is unknown.
- c. Training at national-level schools. Directly controlled by the Military Commission, these consist of all major officer schools, various technical schools and political academies. An example of a national-level school is the PLA Military and Political College in Peking. Its students represent the army, navy and air force, study politics, military affairs and culture, and engage in agricultural and industrial work. Attendance at the Higher War College is considered to be the apex of the individual's military education.



A commander lecturing on his unit's revolutionary traditions

The Life of the Officer

5-64. The life of the Chinese officer, particularly that of the "junior officer" (company level), is probably not unlike that of officers in other armies. He provides leadership, conducts training, supervises unit activities, and manages the affairs of both the unit and the individual soldier. Unlike other army officers, however, he maintains a rather close relationship with the ordinary soldier, having himself come up from the ranks. Despite higher pay and other benefits derived from his status, the officer, at least theoretically and politically, is an equal of the men he commands.

Conditions of Service

5-65. *Pay.* Officers (commanders and political commissars) receive a monthly salary that reflects the position occupied and total years in service. The current Chinese pay system lists 24 pay grades from student to national-level cadre. Following is a partial list of estimated pay scales in 1973:

Pay Grade	Position	Basic Monthly Pay*	U.S. \$ Equivalent
1	Vice Chairman, MC		
4	Military Region Commander	475 yuan	(\$242.25)
11	Army Commander	350 yuan	(\$178.50)
13	Division Commander	225 yuan	(\$114.75)
15	Regiment Commander	190 yuan	(\$96.90)
19	Battalion Commander	160 yuan	(\$81.60)
21	Company Commander	130 yuan	(\$66.30)
23	Platoon Leader	75 yuan	(\$38.25)
24	Student Officer Trainee	50 yuan	(\$25.50)
		45 yuan	(\$22.95)

*Estimated monthly basic pay including longevity increments.

5-66. *Leave.* Bachelor officers are entitled to 15 days' leave every 2 years as are married officers accompanied by their dependents. Married officers unaccompanied by dependents are granted 30 days' leave annually.

5-67. *Promotion.* Officer promotion within the PLA depends on military competency and political reliability and because there are no ranks it would be a promotion in position for example, from deputy battalion commander to battalion commander. Career progression, however, normally remains in either the military or political command fields. Crossovers to the other field may occur at the higher levels of command, but are exceptions to the rule.

5-68. *Retirement.* An officer's age, his record and his future potential, as well as the needs of the service, are all considered when a decision is made to retain him on active duty or separate him from the military. There is no known annuity-type military pension system. At the time of separation or retirement, a one-time cash bonus is made based on the number of years served and the monthly base pay for the position held at the time of discharge.

5-69. *Work after Retirement.* Retired officers, if medically qualified, normally return to work in their local communes or industries, where they also serve in the militia.



Despite extensive military training, physical conditioning, and political indoctrination, the ability of today's junior "commander" to inspire and lead troops remains untested

Combat Efficiency

5-70. One of the major concerns of the Chinese military leadership today is how the present generation of junior leaders will perform in combat. Although the military training, physical conditioning, and political orientation of today's young PLA officer is considered sound, his grasp of tactics, technical proficiency and ability to lead and inspire troops remain untested in modern warfare. He is constantly reminded of the PLA's revolutionary traditions and is encouraged to emulate veterans whose military careers spanned entire decades of incessant combat against the Japanese, the Nationalists, and in Korea. However, most senior officers are experienced veterans and are considered efficient and capable in both tactics and command.

5-71 5-75. *Reserved.*

CHAPTER 6 THE CHINESE NAVY

Historical Background

- 6-1. The Peoples Republic of China Navy (PRCN) grew out of units formed when the Chinese Communist ground forces gained control over large segments of the China coastline and a number of naval units and facilities fell into Communist hands. A motley assortment of abandoned and captured ships and craft was deployed against withdrawing Nationalist Chinese troops and provided the nucleus of the PRC Navy.
- 6-2. The PRCN was formally established in September 1950 when the various regional naval forces were unified and placed under the direct command of the general headquarters of the Peoples Liberation Army. A naval air force (PRCNAF) was created in 1952.
- 6-3. A reorganization of the navy followed the governmental reorganization of August 1954. All duties of the previously existing naval districts were relegated to fleets, the headquarters of which were subordinate to naval headquarters. The PRCNAF was expanded at that time.
- 6-4. Soviet aid increased after 1953. Between 1954 and 1960 the Soviet Union supplied the PRC with a variety of combatants, and Soviet advisers and instructors assisted with the organization and training. With Soviet aid, a shipbuilding industry was developed with emphasis on the construction of medium and small units, especially submarines.
- 6-5. In the 1960's the navy continued to improve the quality and increase the quantity of its ships and personnel despite the PRC's economic setbacks, the Sino-Soviet rift and the withdrawal of Soviet advisers, and the upheaval of the Cultural Revolution.

Current Status

- 6-6. Influenced by the Soviet concept of coastal defense in the 1950's, China's navy has expanded to become the largest indigenous navy in Asia. In numbers of units it now ranks second only to the Soviet Navy. The surface force consists mostly of coastal patrol craft such as missile boats, motor gunboats and torpedo boats. It also includes guided-missile destroyer/frigate-type ships, mine-warfare ships, amphibious ships and craft, and support units. The PRCN fleet of diesel-powered attack submarines is the third largest in the world and continues to grow. Moreover, the Chinese have constructed one diesel-powered Soviet GOLF-class ballistic-missile submarine and a nuclear-powered submarine of indigenous design. It is possible that these are part of a ballistic-missile nuclear submarine development program.

Mission

- 6-7. The PRCN is primarily a defensive force; however, it also has a limited offensive potential. Its missions include defending the coast against maritime assault, maintaining the security of territorial waters, protecting sea lines of communications, and supporting the PRC's foreign and domestic policy. Navy

tasks in support of these missions include submarine warfare, antisubmarine warfare, surface warfare, amphibious warfare, mine warfare, and logistics support of the forces involved.

Capability

6-8. The PRCN has an impressive capability for coastal defense. The expansion of naval forces has resulted in a capability to enforce the stated PRC policy of coastal defense to . . . *turn China's coastline into a great wall of iron*. It is clear that the Chinese could inflict substantial damage on the forces of would-be invaders from seaward, including those of the superpowers.

6-9. PRC naval forces are best suited for operations in the shallow waters along China's extensive coastline where hit-and-run tactics under shore-based air cover are most effective. The current emphasis is on construction of guided-missile boats and diesel attack submarines. Motor torpedo and guided-missile boats are considered to be the most effective of the PRCN's coastal surface combatants, while submarines are the most likely units to be employed if operations outside of immediate coastal waters are to be undertaken.

6-10. The PRCN's capability to conduct extended-distance or long-duration operations at sea is very limited. The present inventory of 14 destroyers and frigates could form the nucleus for an oceangoing force, but they are limited by inadequate air and submarine defenses when operating in the open ocean beyond the range of ground-based air support.

6-11. The PRCN has a sufficient number of conventional amphibious vessels to lift a force of over 30,000 men and equipment in a regional (less than 70 hours' transit) amphibious assault. The over-the-bench lift could be augmented by over 400 merchant ships in an administrative lift of support personnel and equipment. Several thousand coastal junks could also be utilized in an amphibious lift role. Successful employment of such a prodigious force against a well-defended objective is subject to:

- a. The limitations of the size and age of the current inventory of naval amphibious vessels,
- b. The capability to obtain air and naval superiority in the objective area,
- c. Determination and defensive strength of the enemy, and
- d. The acceptable ratio of assault forces to defenders according to PLA doctrine.

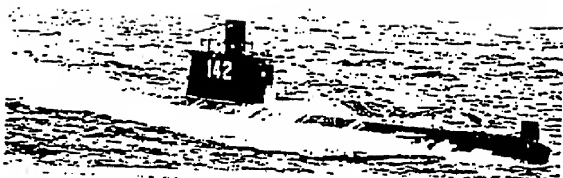
Organization

6-12. As a major branch of the PLA, the PRCN is controlled through naval headquarters which is directly subordinate to the Military Commission through the General Departments (see figure 14).

6-13. The Commander in Chief of the PRCN, assisted by his deputies and staff at naval headquarters, is responsible for a variety of forces, facilities, and organizations. Some are directly subordinate to naval headquarters, while others are controlled through subsidiary headquarters. Many naval elements appear to be under dual subordination, and in some instances interservice coordination must be effected as well.



WHISKEY Submarine (SS)



ROMEO Submarine (SS)

A growing fleet of diesel powered attack submarines such as these two are expected to be the outer ring of defense against an approaching enemy naval force.

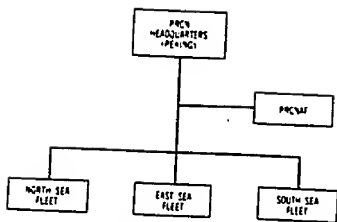


Figure 14 PRCN Organization

6-14. PRCN Headquarters. The top command of the PRCN consists of a commander and a political commissar who are assisted by deputies and a headquarters staff to supervise the operational, political, support, training and other functions of the navy. In line with Chinese military practice, the commander and political commissar share responsibility. The naval commander serves also as a Vice Minister of National Defense.

6-15. Joint action of naval units with other elements of the armed forces, such as aircraft, coastal defense or antiaircraft artillery units, is coordinated through naval headquarters.

6-16. The PRCN is organized into three fleet commands: North Sea, East Sea, and South Sea. The headquarters of these fleets exercise operational control in their respective areas over all afloat forces, naval air units, and the ashore elements of coastal defense. The fleet commands are also believed to have administrative control over base, shipyard, repair, and training facilities located in their respective areas, although there is necessarily a degree of direct control of most of these installations by naval headquarters.

6-17. Fleets.

- a. The North Sea Fleet protects Peking and the strategically critical northeast plains from attacks through the Yellow Sea and Po Hai Gulf.
- b. The East Sea Fleet defends the industrial Shanghai area and the contested Taiwan Strait.
- c. The South Sea Fleet guards commercial Canton and China's insular flank in the South.

6-18. Chinese naval order of battle data can be found in figure 15.

6-19. *Naval Air Force*. The primary mission of the PRC Naval Air Force (PRCNAF) is air defense of naval installations and surface forces. The force is land based and can provide only close-in support. Secondary missions include maritime reconnaissance, tactical support of the PRC fleets with antishipping bombing and torpedo attacks, and support of amphibious operations.

6-20. The majority of the aircraft are air defense fighters. There are also a few intermediate-range jet bombers and a moderate number of medium-range jet bombers and attack aircraft. Order-of-battle figures in the PRCNAF section of this handbook include aircraft assigned to the PRCNAF. A list of naval combat aircraft, by type, includes:

- | | |
|--------------------|----------------------------------|
| a. Bombardment: | Intermediate-range--Tu-16 BADGER |
| b. Air Defense: | Medium-range--Il-28 BEAGLE |
| | MiG-17 FRESKO |
| | MiG-19 FARMER |
| c. Surface Attack: | F-9 FANTAN |

6-21. The close coordination required between air force and naval force defense operations probably necessitates the operational control of naval air defense units being under the PRCNAF. Other naval air units are responsible directly to naval headquarters in Peking through the three fleet headquarters.

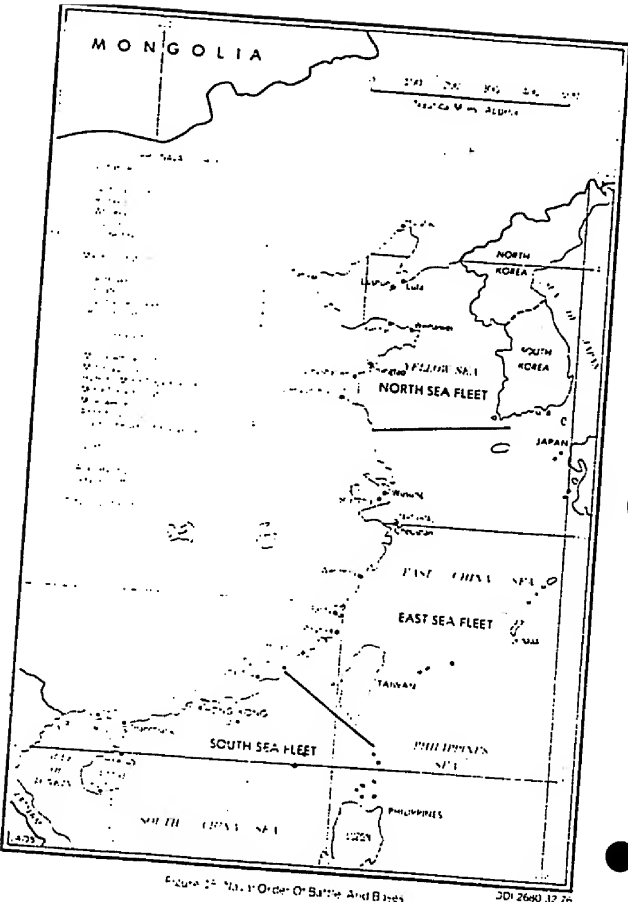
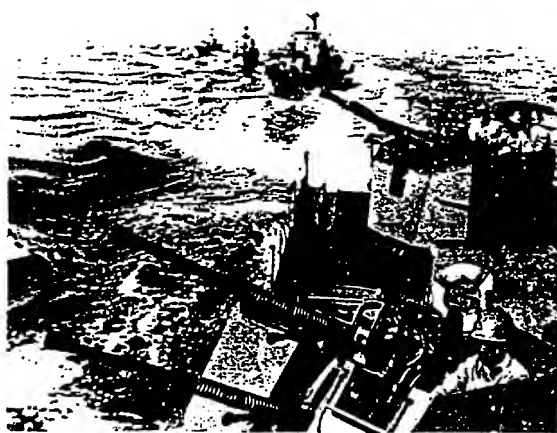


Figure 2- Western Order of Battle and Lines

DOI 2640.32.76



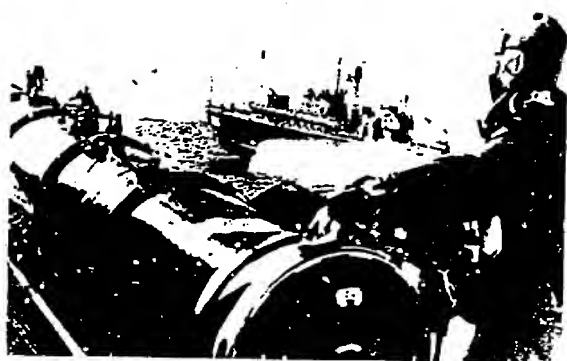
SHANGHAI: class motor gunboats (PGM) on coastal defense exercise



Fleet of P6 motor torpedo boats (PT) anchored in an estuary. These craft are an essential part of China's close-in coastal defenses. The crews are studying the works of Mao Tsetung.



This LU7A guided missile equipped destroyer (DDG) is one of the largest surface vessels in the Chinese Navy



P6 moito: torpedo boats (PT) on a training exercise

6-22. *Coastal Artillery.* Patterned along Soviet lines, the coastal artillery units of the PRCN support naval air and afloat forces in defensive operations. They are believed to be organized as independent regiments administratively subordinate to the naval base commander and are stationed in the vicinity of the various ports and naval bases. These naval coastal artillery units work in close cooperation with army artillery units.

Doctrine and Tactics

6-23. The primary mission of the navy defense of the PRC coast is accomplished through construction of ships and craft well suited to their assigned tasks, through deployment of these units in accordance with strategic priorities, and reportedly through administration of a vigorous and expanding training program.

6-24. China's navy is the seaward extension of the PLA. As such, it supports a well-coordinated national defense plan. The outer ring of defense is believed to be the growing fleet of diesel-powered attack submarines which would defend against an approaching force with torpedoes and mines. This outer perimeter is backed up by bomb- and torpedobomber-armed attack aircraft of the PRCNAF. Destroyer-type units provide a second defensive ring. Their firepower, sea-keeping ability, range and speed provide flexibility and mobility to the defensive plan, enabling naval headquarters to quickly fill gaps through intra-interfleet transfers. This perimeter, however, is limited in depth to the protective range of fighter aircraft. Close-in defense, also under the protective air umbrella, is the task of the large and ever-increasing number of fast missile boats, torpedo boats and gunboats, as well as patrol and mine craft. PRCN tactical doctrine allegedly emphasizes the use of surprise attacks, combat at night and during periods of poor visibility, close combat with infiltration of an enemy's rear, and destruction of an enemy with a concentration of force. In addition, it is probable that extensive protective minefields would be laid both to protect shipping and to guard against amphibious assaults.

Personnel and Training

6-25. *Personnel.* The total PRCN personnel strength is in excess of 250,000 men, including shipboard and shore-based manpower and naval air personnel.

6-26. *Recruitment and Service.* Recruits are assigned to the PRCN as necessary from those who are called up annually under the PRC military conscription system. A flawless political background and excellent health are considered to be the main prerequisites for selection. Although current information is inconclusive, normal term of service in the PRCN is thought to be 5 years.

6-27. *Training.* The PRC has developed a national program for the training of naval officers and enlisted men. Officer training is accomplished in part through naval schools. The best known of these is the permanent naval academy, the First Naval School, which was established with the founding of the PRCN in 1950. More advanced training is given at the Naval War College.

6-28. The enlisted training program has considerable operational flexibility. All military conscripts receive a few weeks of orientation and rudimentary basic military training. During this period selections are made for service in the various

service arms. Those selected for the navy become naval recruits and assume, for the first time, a strictly naval identity. They are then sent to one of the naval schools or shore commands for further training. If an individual is to be assigned aboard ship, he is sent to one of the fleet schools for several months. Upon completion of this training the seaman, no longer a recruit, is assigned to an afloat unit for practical on-the-job training. The duration of this stage is flexible and is determined largely by the ability of the individual and the personnel needs of the department. Those recruits assigned ashore are absorbed directly into a naval command or activity where they commence on-the-job training without further formal naval schooling. Here again, the length of indoctrination is indefinite and phases out gradually as the need for supervision diminishes. Political training, however, is given continuously to all personnel for the duration of their service terms.

6-29. *Pay and Allowances.* PRCN personnel reportedly receive 10 percent more in pay and allowances than do army personnel in comparable positions. Allowances probably are given for sea and submarine duty and for length of service.

Naval Vessels

6-30. The PRCN inventory includes a variety of vessels of foreign (Soviet, Japanese, British, and United States) origin, as well as an increasing number and assortment of vessels from Chinese yards. Many of those supplied by the Soviet Union and almost all of those taken over from the Chinese Nationalists are World War II warships. Domestic production resulting from an ambitious shipbuilding program begun in the 1950's emphasizes submarines, missile boats, gunboats, torpedo boats, patrol boats, destroyers, frigates and auxiliary craft.

6-31. *Order of Battle.* PRCN naval order of battle includes 1,215 ships and craft and continues to grow. The submarine force consists of one GC*-F-class ballistic-missile submarine and 65 conventionally powered torpedo attack submarines, the majority of which are WHISKY- and ROMEO-class units. Additionally, the PRCN has a HAN-class, possibly nuclear-powered submarine of indigenous design. Major surface combatants include:

- a. Nine guided-missile destroyers.
- b. Five guided-missile frigates (one of which is possibly equipped with surface-to-air missiles).
- c. Four frigates.

Auxiliary vessels and yard and service craft round out the naval inventory.

6-32. Chinese naval vessels are depicted in annex Y.

6-33. *Logistics and Materiel.* The Rear Services Department under naval headquarters is responsible for logistic service. In general, the PRCN logistical system and practices follow those of the Soviet navy.

6-34. Navy units originally were equipped mainly with materiel of Soviet origin or design. Since the 1950's, however, the PRCN has been undergoing a modernization program aimed at acquiring the capability to build and equip

various naval vessels without outside assistance. The precipitous withdrawal of Soviet aid caused a severe hardship on China's navy, but it accelerated the development of a domestic capability.

6-35-6-40. *Reserved.*

CHAPTER 7 THE CHINESE AIR FORCE

Historical Background

7-1. The PRC Air Force (PRCAF) was formally organized in 1949. Its origins, however, can be traced to the 1930's when the Communist forces of Mao Tse-tung acquired aircraft belonging to the Nationalist government. The force was further increased in 1946 with captured Japanese aircraft and in 1949 when the Communists attained control of mainland China. The Korean War heralded a period of rapid modernization with the Soviet Union supplying large numbers of jet aircraft and providing aircrew training. Deteriorating Sino-Soviet relations climaxed in 1960 when the Soviets recalled their technicians and withdrew military aid. By then, however, the PRC had aircraft production facilities in Manchuria and some experience in jet aircraft production. Chinese versions of the MiG-15 and MiG-17 were produced under Soviet license in the mid to late fifties. By 1965, Chinese technology had progressed considerably; they were able to begin series production of the MiG-19 FARMER and later the Il-28 Bl-ACGL, Tu-16 BADGER, and limited numbers of MiG-21 FISHBED. The first aircraft both designed and produced by the Chinese, the F-9 FANTAN fighter-bomber, entered the inventory in the early seventies.

Current Status

7-2. In the last decade the PRC has developed the third largest air force in the world and the only Asian air force, with the exception of the Soviet Union, with a strategic nuclear capability.

Mission

7-3. The primary mission of the PRCAF is the defense of mainland China with the preponderance of the force being air-superiority aircraft. Tactical missions include close air support and interdiction of enemy targets, military airlift, and reconnaissance. The intermediate-range and a small number of the medium-range bomber forces have a limited nuclear-strike capability but they are probably designed primarily for regional operations.

Capability

7-4. The PRCAF can provide effective air defense against any potential Asian aggressor with the exception of the Soviet Union, and the tactical bomber force is capable of providing effective close air support and interdiction of enemy lines of communication. The nuclear bomber capability of the PRCAF is probably, by itself, not sufficient to deter any Soviet military ambitions; it adds significantly to PRC international prestige, however.

Organization

7-5. The PRCAF organization is based on the air district system, with air districts being generally analogous to the military regions. PRCAF Headquarters exercises command responsibility directly to each air district with no intervening level of command. The military region headquarters probably exerts some degree



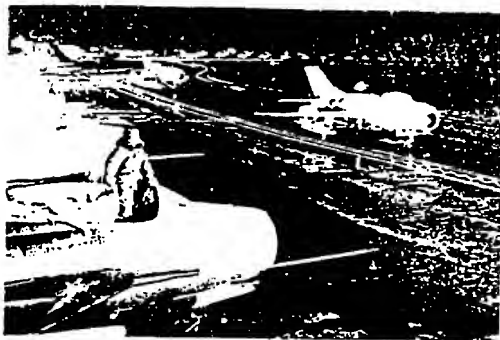
06-134 0-01



125 BEAGLE. E-mail um range of bombers lined up and ready during a training exercise



MiG-19 FARVe1 at fighters information



Night flying training in MiG 19 FARMER jet fighter aircraft

of control over regional air forces for overall coordination of the military effort. Strength of individual air districts is determined by their proximity to potential threats, therefore, the comparative strength of Shenyang, Lanchow, Nanchang, and Kuangchow is greater than that of other air districts. The largest operational unit within the PRCAF is the air division with, generally, each air division consisting of three regiments, each regiment consisting of three squadrons and each squadron consisting of three flights. Figure 1b is an estimate of the command relationships from the Military Commission to air division levels.

Doctrine and Tactics

7-6. *Fighter Tactics.* The basic fighter tactic is multilayered flights with two elements of aircraft per flight providing mutual support at as many as four different altitudes. Of the leading two aircraft, the leader is the offensive aircraft, with the other providing flight defense and massing of firepower. It is possible that the PRCAF has a limited air-to-air missile capability with ATOLL-type heat-seeking and possibly alkali-type beam-riding missiles. The majority of the force, however, is probably fitted with cannon only. Only a small percentage of the air defense force has an all-weather capability.

7-7. *Bomber Tactics.* Bomber crews are considered proficient in both low- and high-level bombing. Enemy capabilities would greatly influence tactics; for any given situation, however, tactics would probably be traditional. Mass low-level attacks against enemy targets would be multidirectional at varying speeds and altitudes and high-level bombing would be conducted in formation or trail. Ground attack missions will be predominately preplanned sorties since the PRC appears to lack a ground or airborne forward air control system; therefore, in a fluid battlefield situation, tactical bombers would be much less effective. Night operations are limited to the BF-UGLF and BADGER force.

Personnel and Training

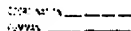
7-8. *Personnel.* Current estimates place the manning in PRCAF operational units at over 170,000 personnel. Of this total, 10,000 are pilots.

7-9. *Recruitment and Service.* Recruits are assigned to the PRCAF as necessary under the military conscription system. Selection is often limited to those recruits possessing technical training. Term of service in the PRCAF is for a period of 4 years.

7-10. *Training.* Flight training of PRCAF aircrews is divided into three phases: primary, intermediate, and advanced. Training normally lasts 2 years.

a. Primary flight training includes a curriculum of basic theoretics, aerodynamics, theory of flight, meteorology, elementary flying, and political education. Primary flight training normally lasts approximately 6 months.

b. Intermediate flight training encompasses daytime flying under both normal and complex weather conditions, night flying, fixed-aiming bombing, aerial gunnery, and intermediate theoretics. Duration of this phase of training is approximately 9 months.



7.7

c. Advanced flight training includes flight under complex weather conditions, high-altitude flight acrobatics, instrument training, interception, and formation flying. Advanced flight training normally lasts 9 months. Upon completion of advanced flight training, aircrew members are assigned to an operational unit for transition and operational training.

Aircraft

7-11. The aircraft inventory of the PRC, although large, consists mainly of Korean War-vintage aircraft. The bomber force includes some 65 Tu-16 BAMBUR intermediate-range jet bombers and over 400 H-28 BLAGLE medium-range jet bombers. The PRC air defense system includes more than 4,100 aircraft with MiG-17 FRISSON and MiG-19 FARMER jet fighters comprising the bulk of the force. Only a few relatively advanced MiG-21 FISHER are included in the interceptor inventory. The force is mainly a clear air-mass daylight force with only a small percentage of the aircraft having an all-weather capability. The tactical bomber force has over 400 MiG-15 FANGOT and F-9 FANIAN fighter-bombers (the latter designed and produced by the Chinese based on the Soviet MiG-19 FARMER).

7-12. PRC aircraft inventory is tabulated in annex Z. Silhouettes of representative aircraft are depicted in appendix 1 to annex Z.

Airfields

7-13. There are presently approximately 400 operational airfields in the PRC. If a majority of these airfields are located east of the 108-degree meridian in the most populous area of China. Most of the military airfields, those used by the various air force operational units, have runways of 6,000 feet or more in length and are generally utilized in an air defense posture.

7-14. Following is a description of PRC airfields as of November 1975.

Runway Length (in feet)	Runway Surface *			Total
	P	T	N	
14,000 and over	4			4
13,000 - 13,999	1			1
12,000 - 12,999	2			2
11,000 - 11,999	5	1		6
10,000 - 10,999	9			9
9,000 - 9,999	11	2		13
8,000 - 8,999	46	2		48
7,000 - 7,999	85	7		92
6,000 - 6,999	42	10	3	55
5,000 - 5,999	10	16		26
4,000 - 4,999	13	22	1	36
under 4,000	14	52	17	83
under construction				6
seaplane stations				2
	242	112	21	383
	==	==	==	==

* P = Permanent
T = Temporary
N = Natural

7-15 - 7-18. *Reserved.*

CHAPTER 8 CHINESE MISSILE SYSTEMS

Overview

8-1. In order to insure its national security by deterring an attack by a superpower and to establish its international negotiating position, the PRC has built an increasingly powerful strategic military establishment. PRC ballistic-missile capabilities are relatively modest compared to those of the United States and the USSR, but they are growing at a significant and deliberate rate. Although currently posing no strategic threat to the continental United States or to Western Europe, and only a partial threat to the Soviet Union, the PRC perceives its emerging nuclear capability as a credible and effective deterrent.

Background

8-2. China's development of a nuclear ballistic-missile force was based on the technical and provided by the Sino-Soviet Defense Agreement signed in late 1957 or early 1958, although assistance had probably started a year or two earlier. Following the Sino-Soviet split in 1960, the PRC was able to develop native-designed surface-to-surface missiles using this Soviet technical base. Since 1966, when the PRC announced that it had fired its first nuclear-tipped ballistic missile, the Chinese have made progress in increasing the size and effectiveness of their nuclear missile force. Although their nuclear stockpile is limited compared to that of the United States or USSR, it is expected to increase fairly rapidly over the next few years as the availability of fissionable material increases.

Strategic Capability

8-3. The painstaking, methodical approach used by the Chinese in their strategic missile program has resulted in a modest but highly credible nuclear retaliatory capability against the USSR and other nations on China's periphery. While this capability does not yet extend to the continental United States, China does have the ability to conduct nuclear strikes against targets around the periphery of the PRC including U.S. and allied installations in the western Pacific.

Strategic Ballistic-Missile Systems

8-4. Currently, the PRC has a variety of operational nuclear weapons systems including a medium-range ballistic missile (MRBM) and an intermediate-range ballistic missile (IRBM). China is also actively pursuing a viable intercontinental ballistic-missile (ICBM) developmental program. (See annex AA for details.)

a. *Medium-range Ballistic Missiles.* China's MRBM force consists of a small number of liquid-fueled, single-stage, road-transportable missiles similar to earlier Soviet systems. This 600-nautical-mile (nm) missile, which has been operational since 1966, is believed to carry a warhead of about 20 kilotons (kt). MRBM's can strike targets in all of Korea and Taiwan and in most of Thailand and Japan. They can also reach some allied and U.S. bases in the Far East and some key military-industrial targets in the Soviet Far East.

b. *Intermediate-range Ballistic Missiles.* Although China has a penchant for maintaining obsolete hardware in its inventory, the MRBM may be replaced eventually by the IRBM. China's IRBM force, operational since 1972, is also small in number. It is a native-designed, single-stage, storable liquid system with a range of 1,500 nautical miles. Operational deployment of this system is presently underway. Although such deployment provides the PRC with the capability to apply strong political and military pressure against countries such as Japan and India, the system is probably intended for relatively large population centers in central and eastern Russia.

c. *Intercontinental Ballistic Missiles.* China's perception of its strategic nuclear role vis-a-vis the United States and the USSR has necessitated its active pursuance of a viable ICBM developmental program to complement the MRBM and IRBM force. One system, a limited-range, multistate, liquid-fueled missile capable of reaching targets in European USSR, could be operational at any time. It is expected to be the first Chinese system deployed to silos. The program, however, is a major enigma because development has been painstakingly slow, and it does not appear that deployment will be extensive. The reason for such limited deployment is difficult to ascertain, but it may be that China has decided to wait for its full-range ICBM to become operational. This full-range ICBM program is progressing at a slow but steady pace. This missile, similar to the U.S. Titan, could carry a multimegaton warhead over a range of about 7,000 nautical miles. This would provide China, for the first time, with the capability to strike the continental United States. Deployment of this system, which will probably be to hardened silos, is not expected until the late 1970's or early 1980's.

Submarine-launched Ballistic Missiles

8-5. The Chinese have also been working for some time on the development of a submarine-launched ballistic missile (SLBM). They have one Soviet-type GOLF-class diesel-powered ballistic-missile submarine which they built in the 1960's from components supplied by the USSR. If the PRC is, in fact, developing an SLBM, it is reasonable to assume that the GOLF-class submarine will be used as the test platform. It is difficult to forecast the rate of progress of the SLBM program, but it is believed that such a system will not be operational until the 1980's. While there is no firm evidence for estimating an initial operational capability for a solid system, it is thought that the SLBM will be solid fueled when operational. China has made large investments in research, development, and production facilities for solid-propellant missile systems including possibly MRBM's, IRBM's, and a second generation ICBM. Such investments present significant implications for the future of China's ballistic-missile force.

Tactical Nuclear Missiles

8-6. The PRC does not currently possess a tactical nuclear missile capability. Although it is believed that such systems are within its technical capability, from certain selected locations throughout the country, portions of China's strategic ballistic-missile force could be used in a theater support role against invading

forces. Command and control of the missile resources would most likely remain under Peking's authority. It is doubtful that the use of these missiles would be delegated to the PLA ground forces.

Other Missile Systems

8-7. Other PRC missile systems include the surface-to-air missile (SAM) and cruise missile - surface-to-surface missile (SSM).

a. *Surface-to-Air Missiles (SAM)*. China's basic operational SAM, the CSA-1, is the Chinese variant of the Soviet SA-2 system. Thinly deployed, numbering only a few hundred launchers, this system provides only a limited point defense of key urban and industrial areas and of advanced weapons complexes. The missile is quite effective against subsonic aircraft and would be supplemented by tactical air and antiaircraft artillery. The overall Chinese SAM force, however, would be relatively ineffective against the large modern air forces of the United States and the Soviet Union. For the next several years, the PRC is expected to increase the number of SAM launchers as they extend SAM defenses to protect other important areas not now defended. China probably will also eventually develop a low-altitude SAM system.

b. *Cruise Missiles - Surface-to-Surface Missiles (SSM)*. The majority of the PRC's major surface combatants are equipped with a cruise SSM which is modeled after the Soviet-designed STYX. China may have also deployed a few coastal defense missiles. Although this type of missile could be used tactically in support of ground forces, like the Soviet SA-15H cruise missile, the PRC probably intends to employ it primarily against enemy naval vessels.

8-8 - 8-10. *Reserved.*

CHAPTER 9 THE POLITICAL STRUCTURE OF THE PEOPLES LIBERATION ARMY

Background

9-1. The importance of political leadership over the armed forces by the Chinese Communist Party (CCP) has been a constant theme throughout the history of the PLA. By the time that he had fled to Chingfang Mountain in 1928, Mao Tse-tung had accepted the inevitability of armed struggle as the only means by which to achieve his revolutionary goals. This struggle was to be waged by an army which was not only militarily strong but ideologically motivated and politically loyal to the CCP and the cause it espoused. The dictum that *political power grows out of the barrel of a gun; the party commands the gun and the gun must never be allowed to command the party*, has remained the basic tenet guiding political-military relations in the PRC.

Politicization of the PLA

9-2. The theory of party leadership over the PLA consists of two distinct elements. The first is that of political control: control by the CCP over the military leadership in order to insure that its policies are implemented. The second is that of political education: the process by which support for the policies of the CCP is secured with the armed forces. Normally referred to as the process of politicization, this dual theory of political control and political education has had a direct influence on the PLA's conception of and attitude toward its role in Chinese society and its relationships with other actors in the Chinese sociopolitical system. Time and again politicization has been used to shape beliefs, implant values, and guide action, insuring the PLA's loyalty to the CCP and making the PLA always responsive to the party's will: be it foreign intervention, road construction, or involvement in domestic politics.

9-3. Politicization in the PLA is accomplished by means of a complex, political apparatus composed of two distinct and separate hierarchies, paralleling the military chain of command and corresponding roughly to the functional division between political control and political education: party committees and political departments.

9-4. *Party Committee.* The first hierarchy is composed of a series of party committees which extend downward from the Military Commission (MC) of the Chinese Communist Party to the regimental level. At the battalion level the party committee is known as the "general branch", at the company level, the "branch", and at platoon level, the "cell." The party committee exists independent from but parallel to the military command structure. It is responsible to the next higher party (military organization) committee and (in peacetime) to the civilian party committee of the locality where the unit is stationed. The party committee of a given unit is elected by all the members of the unit subject to the approval of the next higher party committee. Membership almost always includes the unit's military commander and political commissar whose selection must have the approval of the higher-level party organ.



A meeting of an armored unit's Party cells



A company political officer instructs new recruits.

9-5. The party committee fulfills its role of political control over the military leadership by seeing that all party decisions, directives and orders are expeditiously implemented and judiciously adhered to. In addition, the party committee is responsible for planning and policymaking within its jurisdictional spheres, for unit discipline, and for personnel matters including promotions, demotions and transfers.

9-6. *Political Commissar.* The exercise of political control by the party committee is personified in the political commissar. The political commissar serves as the official representative of the party in the military unit and as such is directly responsible for all political activities in the unit. He normally serves concurrently as the secretary of the unit's party committee. The political commissar enjoys a status that is theoretically equal to that of the military commander. Under this dual command system, the commissar shares responsibility with the commander for all military work. In principle, the commander is responsible for the unit's "military" matters: combat operations, logistics, and tactical training. The commissar, on the other hand, is responsible for purely "political" matters: security discipline, personnel affairs, and ideological training. However, over the years the political commissar has often emerged as the key figure in the command structure by virtue of his being the spokesman for the party in all matters, whether military or political.

9-7. *Political Department.* The second hierarchy in the political apparatus is the system of political departments. An integral part of the military's formal command structure, the political department exists parallel and subordinate to the party committee at each level of command. Political departments extend from the General Political Department (GPD) of the PLA Headquarters in Peking down to the regimental level "political office." The personnel of the political offices supervise the battalion-level "political education officers" and the company-level "political instructors," who in turn oversee the political activities of "political fighters" in platoons and squads.

9-8. The primary function of the political department is to implement the decisions of the corresponding party committee and to secure the support of the rank-and-file for the party's policies through political education. At regimental level and above, the political department is subdivided into various functional sections responsible for matters relating to counterintelligence, morale, education, propaganda, welfare and recreational cultural work.

9-9. At the lower levels of the army's organization, particularly at company level, the functions of the political commissar and of the representative of the political department merge in the person of a single political officer or "political instructor." Responsible for all political activities in the unit to which he is assigned, the company-level political officer embodies both the control and the educational functions of the political apparatus and serves as the vital link between the decisionmakers and the ordinary soldier.

Political Schools and Academies

9-10. Although political education is an essential element in the curriculum of all Chinese military schools and academies, special political schools have been established to train field grade political cadres. These include the Marx-Lenin

Political Academy and the PLA Political College, both in Peking, and four or more national-level political schools. Information on admission, length of course, and curriculum is not available.

9-11 9-15. *Reserved.*

CHAPTER 10 UNIFORMS AND INSIGNIA - AWARDS AND DECORATIONS

SECTION 1 UNIFORMS AND INSIGNIA

Background

10.1 In June 1965 all insignia indicating rank and branch of service were abolished and a standard uniform for all branches of the PLA was adopted. Officers have since been distinguished from enlisted men by the number of pockets on the coat: officers' coats have four pockets, those of enlisted personnel have two pockets. There have not been any noticeable changes in the uniforms of the army and the air force since 1965. However, in 1974 changes were made in the uniforms of navy personnel, particularly those worn aboard naval vessels.

Army Uniforms

10.2. There are three types of army uniforms:

- Parade dress.
- Service dress.
- Field dress.

10.3. Parade and service dress are basically the same except that brown leather belts with side-arm holsters or ammunition pouches, white gloves, and black leather boots instead of shoes are worn with the parade dress. The winter parade dress uniform includes a brown fur cap and an overcoat with a brown fur collar (figures 17 and 18.)

10.4. The field dress uniforms for winter and summer are made of olive-green cotton material, identical in color and style, except that the winter uniform has an inner lining of quilted cotton padding which gives it a bulkier appearance. These uniforms (winter and summer) become combat types with the addition of pouches, belts and other equipment. A light-green, faded outer shell worn over the winter field dress uniform has been observed. (figures 17 and 19.)

10.5. Female personnel wear the same type of summer and winter dress uniforms as the males. As of 1 May 1974, they were authorized a new service dress uniform, olive green in color, consisting of an open-collar coat and a below-the-knee skirt, worn with a buttoned white blouse, and a beret-type cap with red piping. The uniform is worn with single-strap black shoes and green socks. (figure 18.)

Navy Uniforms

10.6. There are three types of naval uniforms with distinctive styles for afloat and shore-based personnel:

- Parade dress.
- Service dress.
- Field dress.



PARADE TUNIC
SIZE 42-44



WINTER PARADE
TUNIC - PARADE



WINTER TUNIC
SIZE 42-44



WINTER TUNIC
SIZE 42-44



SIZE 42-44



WINTER TUNIC
SIZE 42-44



WINTER TUNIC
SIZE 42-44



Figure 10-1
Army uniform



Figure 10-2
Army uniform



Figure 10-3
Army uniform



Figure 10-4
Army uniform



Figure 10-5
Army uniform



Figure 10-6
Army uniform



SUMMER FIELD
DRESS UNIFORM



SUMMER FIELD
DRESS UNIFORM
COMBAT



WINTER FIELD
DRESS UNIFORM



WINTER FIELD
DRESS UNIFORM



CAP INSIGNIA



COLLAR TABS



CHEMICAL
PROTECTIVE UNIFORM

FIGURE 19 ARMY ENLISTED UNIFORMS AND INSIGNIA

10-7. *Officers.* Naval officers afloat have two styles of summer service dress uniforms. The first consists of a white coat and dark blue trousers, both made of a cotton material, black leather shoes, and a service cap with a black visor and a white crown. The other uniform is identical except that the coat and the *Chieh-fang* (Liberation) cap are blue. The winter service dress uniform is of the same style and color except that the material is wool. A brown leather belt and holster, white gloves, and black boots are added to both summer and winter service dress uniforms for wear as a parade dress uniform. A blue overcoat with a brown fur collar, a fur cap, and the above-listed accessories are used with the winter parade dress uniform. (Figure 20.)

10-8. The summer and winter field dress uniforms worn by shore-based personnel are of the type introduced in 1965. (Figure 20.)

10-9. *Enlisted personnel.* The summer service dress uniform afloat consists of a traditional white jumper with a red rectangular patch on each shoulder, a blue and white striped undershirt, blue trousers, and a large, round, white-crown cap. This uniform without cap and jumper is also used as a work uniform. The same style uniform, all dark blue and made of wool material, is worn as a winter service dress uniform. Black leather shoes and boots and olive-green, canvas, rubber-soled shoes are issued to afloat personnel. A cap band with Chinese characters is worn on the new sailor cap. (Figure 21.)

10-10. In addition to the 1965-style uniform, shore-based personnel wear a service dress uniform of serge-type material consisting of dark blue coat with closed collar and dark-blue trousers, a dark-blue, *Chieh-fang* cap, and black leather shoes. The parade dress uniforms for enlisted personnel are similar to those worn by officers. (Figure 22.)

10-11. Female personnel have the same type summer and winter uniforms as the males. In addition they are authorized to wear a new uniform consisting of a white, open-collar coat with red collar tabs, a below-the-knee skirt, white hobby socks, black strap shoes or sandals, a buttoned, white blouse, and a dark-blue, beret-type cap with white piping. (Figure 22.)

Air Force Uniforms

10-12. There are four types of air force uniforms.

- a. Parade dress,
- b. Service dress,
- c. Field dress,
- d. Flight dress.

10-13. The air force parade dress uniform is believed to be similar to that of the army; however, no information is available for positive identification.

10-14. The summer service dress uniform for both officers and enlisted personnel consists of an olive-green coat with red collar tabs, blue trousers, and black leather shoes. (Figure 23.)

10-15. Officers have a summer field dress uniform consisting of an olive-green, open-collar, waist-length jacket, blue trousers, and black leather shoes. No verifiable information is available on the enlisted personnel summer field dress



PARADE DRESS
UNIFORM
AF-24*



CAP INSIGNIA



COLLAR TABS



WINTER PARADE
DRESS UNIFORM
AF-24*



SERVICE DRESS
UNIFORM
AF-104*



SUMMER SERVICE
DRESS UNIFORM
AF-104*



SUMMER FIELD
DRESS UNIFORM
SHORT SLEEVED



WINTER FIELD
DRESS UNIFORM
SHORT SLEEVED

FIGURE 20 NAVAL OFFICERS UNIFORMS AND INSIGNIA.



WINTER SERVICE
DRESS UNIFORM
ALICAT



SHOULDER TAB
SEAMAN



SUMMER SERVICE
DRESS UNIFORM
ALICAT



CAP INSIGNIA



CAP BAND INSIGNIA SEAMAN
(CHINESE PEOPLE'S LIBERATION ARMY - NAVAL)



WORK UNIFORM
ALICAT



PARADE DRESS
UNIFORM
UNDERBAND



WINTER PARADE
DRESS UNIFORM
UNDERBAND



SERVICE DRESS
UNIFORM
UNDERBAND



SUMMER SERVICE
DRESS UNIFORM
UNDERBAND AND ANKLET



WINTER SERVICE
DRESS UNIFORM
UNDERBAND AND ANKLET



SUMMER SERVICE
DRESS UNIFORM



SUMMER SERVICE
DRESS UNIFORM
OFFICER



SUMMER FIELD
DRESS UNIFORM
OFFICER



SUMMER SERVICE
DRESS UNIFORM
OFFICER AND ENLISTED



SUMMER SERVICE
DRESS UNIFORM
ENLISTED



CAP INSIGNIA



COLLAR TABS



WORK UNIFORM
ENLISTED

FIGURE 23 AIR FORCE UNIFORMS AND INSIGNIA.

uniform, although a work uniform of the same style as the officer summer field dress uniform has been identified. The jacket, like the trousers, is dark blue, not olive green. (Figure 23.)

10-16. Since 1 May 1974 female personnel have been seen wearing a new uniform consisting of an olive-green, open-collar coat, a buttoned, white blouse, a below-the-knee skirt, green bobby socks, black leather shoes or tennis shoes, and a green, beret-type cap with blue piping. (Figure 23.)

10-17. Flight personnel wear sheepskin-lined, brown leather jacket, trousers and boots. This uniform with blue instead of brown leather trousers and the *Chobling* cap has also been observed. (Figure 24.)

Special Uniforms

10-18. *Paratroopers*. Paratroopers wear an olive-green coat with blue trousers, green-ribbed helmet, and light-green jump boots. (Figure 24.)

10-19. *Chemical Warfare*. For this activity there is a green, one-piece protective suit, apparently made of rubberized fabric, a protective mask, gloves, and buskins or boots. (Figure 19.)

10-20. *Armored*. Armored troops wear a heavy, olive-drab, one-piece coverall over the standard uniform in both summer and winter. A ribbed crash helmet or strong canvas material is worn with the coverall. (Not shown.)

10-21. *Public Security Bureau*. As of 1 May 1974, the Peoples Police, including firefighter, border, forest, and railroad police, were authorized a new summer uniform consisting of a green, closed-collar coat, blue trousers, black shoes, and a service cap with a black visor and green crown. Traffic control police wear a white, closed-collar coat, blue trousers, black shoes, and a service cap with a blue visor and a white crown in summer and a completely blue uniform in winter. Female personnel wear a green, open-collar coat, a buttoned, white blouse, blue skirt, and a green, beret-type cap. The cap insignia for all personnel is the national emblem, *Ushakovskaya* (Heavenly gate), and the collar tabs are red. (Figure 23.)

10-22. *Militia*. Members of the militia apparently do not have an authorized uniform. They have been identified wearing several different types including:

- a. Discarded P1A uniforms without the red star or collar tabs.
- b. Factory work clothing

Insignia

10-23. *Collar Tabs*. Red collar tabs are a mandatory item for all uniforms,² except for about enlisted personnel who wear rectangular red patches on their shoulders. Collar tabs are worn by officers and enlisted personnel, both male and female, of all services, including the public security forces.

² Not shown on the following uniform sketches (all air force): Officer summer field dress, Enlisted work, Pilot, Service, and Winter Flight Female.



PILOT
UNIFORM
MALE



WINTER FLIGHT
UNIFORM
MALE



SERVICE
UNIFORM



PARATROOPER
UNIFORM

FIGURE 24 AIR FORCE UNIFORMS



SUMMER SERVICE
DRESS UNIFORM
THANKS TO THE PSB



SLIMMER WINTER
SERVICE DRESS UNIFORM
SUMMER SERVICE DRESS UNIFORM
THANKS TO THE PSB
AND A BEAUTIFUL OFFICER



SUMMER SERVICE
DRESS UNIFORM



CAP INSIGNIA
ARTIST'S CONCEPTION.



COLLAR TABS

FIGURE 25 PUBLIC SECURITY BUREAU UNIFORMS AND INSIGNIA (PEOPLE'S POLICE)



GOOD IN FIVE SOLDIER
OVAL DESIGN



GOOD IN FIVE SOLDIER
PENTAGONAL DESIGN.



ENLISTMENT BADGE



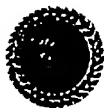
PEACE MEDAL



MODEL SOLDIER



MAO TSE TUNG BADGE
PENTAGONAL DESIGN.



MAO TSE TUNG BADGE
ROUND DESIGN.

FIGURE 26 CHINESE PEOPLE'S LIBERATION ARMY BADGES

10-24. *Headgear Insignia.* A red star insignia is displayed on all headgear worn by members of the PLA forces and the national emblem, *Five-pointed star*, is worn by Public Security Bureau personnel. (Figure 25.) No headgear insignia is worn by the militia.

10-25. 10-26. *Revised.*

SECTION II. AWARDS AND DECORATIONS

Background

10-27. Since the abolition of rank and service insignia in 1965, military personnel have not been observed wearing decorations or commemorative badges on their uniforms. Although such national awards as Orders and Medals of August First, Orders and Medals of Independence and Freedom, and Orders and Medals of Liberation still exist, they are no longer awarded. Commemorative medals and badges for specific battle campaigns are no longer awarded. There is, however, a system of honors and awards for both individuals and units for efficiency, achievement and valor.

Honorary Titles

10-28. *Individual.* The present military awards are based on the "honorary title" system. In individual cases, verbal citations or presentation of a useful gift, such as a diary or a towel, is customary. Meritorious Soldier, Combat Hero, Model Soldier, and Order of Merit are among the many individual honorary titles. Some awards or citations such as the Good Fighter Medal and the Order of Merit (four classes) are awarded to an individual and/or a unit. The Good Fighter Medal (not shown) was instituted in late 1971 and replaced two earlier: Unprovoked awards "Good-in-Five" Soldier, an individual award, and "Good-in-Four" Company, a unit award (see below).

10-29. *Units.* Unit honorary titles are numerous and include designations such as Red Steel and Iron 2 Company, Brave Killer Company, Tiger Company, or Sharp Sword Company. The "Good-in-Four" Company award to units for excellence in political and military training, company administration, company health, and hygiene was discontinued in late 1971 or early 1972. Unit awards may be in the form of an oral or written citation, but for an extraordinary exploit a red citation flag with the feat inscribed in gold is awarded.

Medals and Badges

10-30. Detailed information is available on these medals and badges and few have been identified. Available information appears below and the illustrations (figure 26) were made from photographs.

a. "Good-in-Five" Soldier Medal towel design. Though no longer awarded or worn, this medal still exists; it is comparable to the Good Conduct Medal of the United States Armed Forces. It is awarded for individual achievement in the "five goods," that is, exemplary political attitude, military training and personal bearing, attitude toward discipline, physical conditioning, and the "3-8 work style." It is made of metal and with a safety-pin clasp on the back.

b. "Good Soldier" Soldier Medal (pentagonal design). This medal, also no longer awarded or worn, was probably awarded under the same conditions as the one of oval design. The significance of the different designs of the "Good Soldier" medals has not been ascertained. The illustration shown is the artist's conception as copied from a poor quality photograph.

c. *Red Star of Long Service*. Awarded to individuals who extend their period of service. Another unconfirmed reenlistment award is described as a blue felt ribbon with a suspended, red, five pointed star with the gold inscription *chao chao chao* (long-staying warrior).

d. *Pao-Mei-Lai*. Originally awarded to Communist Chinese and foreign military personnel and civilians who contributed to Chinese Communist support of North Korea during the Korean conflict. It was first awarded on 25 October 1953. Since 1956, however, the medal has become an award for cultural exchanges between Communist China and the Warsaw Pact countries. (Native North Koreans are not eligible for this award.)

e. *Mao Tse-tung Badge* (round design). Issued since the early 1950's and at one time reported to have been awarded for distinguished service in combat. Probably was considered a significant award, but since the beginning of the Cultural Revolution new designs of the badge have been reported and its original significance has diminished considerably. The earlier badges had a four-digit number stamped on the reverse which may have been a manufacturer's number or a control number for a record of issue to the recipient.

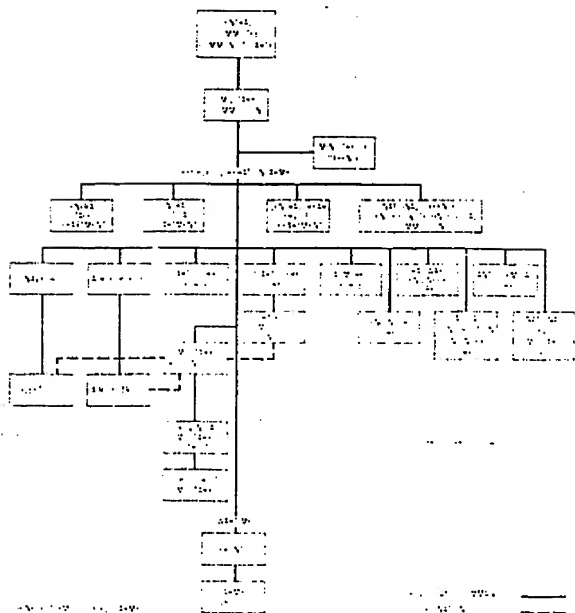
f. *Mao Tse-tung Badge* (pentagonal design). Believed to be the latest design. Worn beneath this badge is a rectangular badge bearing one of Mao's quotations. See also *P. 10-35*. These badges, to be worn with the uniform, were issued to all members of the armed forces during May 1967 and signify the wearer's devotion to Mao Tse-tung.

g. *Mao Tse-tung Badge*. This badge is awarded to model soldiers; eligibility criteria are not available.

h. *Order of Merit* (design not shown). This badge is awarded in four classes and bestowed on individuals or units for exceptional combat service, devotion to duty, and bravery. The four classes are: (1) Special Merit, the highest award granted for meritorious combat service or for bravery entailing death or the loss of a limb or vital organ; (2) Class I, awarded for meritorious service resulting in a serious loss to the enemy; (3) Class II, awarded for meritorious service in which bravery beyond the call of duty was displayed; and (4) Class III, awarded for meritorious service ranging from the conscientious performance of routine duties to the performance of unusual tasks under exceptional circumstances.

Answer A

VILITARY ORGANIZATION OF THE PRC



Аппендix B

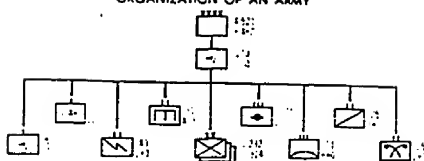


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

[illegible]

ORGANIZATION OF AN INFANTRY DIVISION

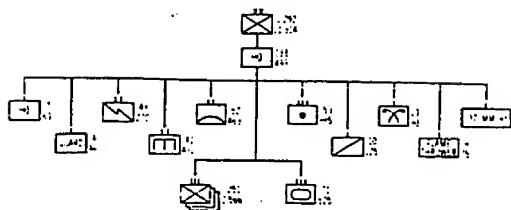


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Variable	Mean	SD	Min	Max	Range	Skew	Kurt	Shapiro-Wilk	Normality	Q-Q Plot	Normality
Age	38.5	12.5	25	65	40	-0.5	3.0	0.95	0.98	0.99	0.99
Gender	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Education	12.5	2.5	10	16	6	-0.5	3.0	0.95	0.98	0.99	0.99
Income	45000	15000	30000	75000	45000	-0.5	3.0	0.95	0.98	0.99	0.99
Marital Status	2.5	0.5	1	3	2	0.0	0.0	0.99	0.99	0.99	0.99
Children	1.5	0.5	0	3	3	0.0	0.0	0.99	0.99	0.99	0.99
Home Ownership	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Auto Ownership	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Health Insurance	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Life Insurance	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Retirement Savings	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Charitable Giving	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Political Participation	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Volunteering	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Religious Attendance	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Community Involvement	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Environmental Concern	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Health Consciousness	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Financial Literacy	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Emotional Stability	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Life Satisfaction	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99
Overall Well-being	1.5	0.5	1	2	1	0.0	0.0	0.99	0.99	0.99	0.99

5

ORGANIZATION OF AN INFANTRY REGIMENT, INFANTRY DIVISION



* SOME ELEMENTS MAY NOT BE LONG PLATON
** NOT KNOWN TO THE ELEMENT

TABLE OF PERSONNEL AND MAJOR EQUIPMENT

6

Appendix

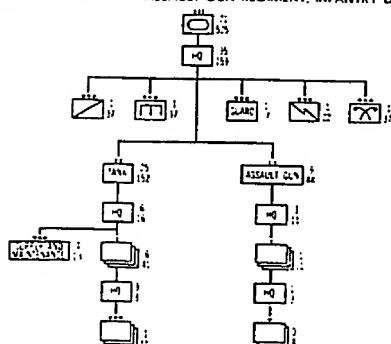
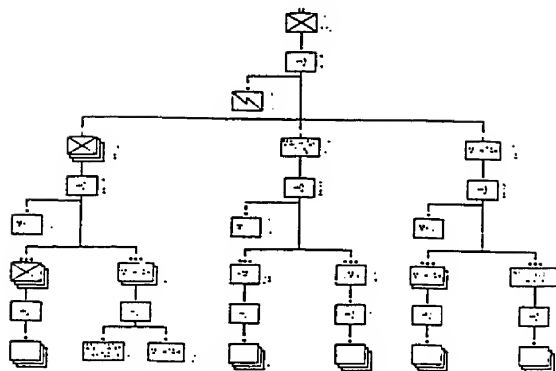


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Foreign Element	Age 15 to 19 Years						Total	Age 15 to 19 Years	Age 20 to 24 Years	Age 25 to 29 Years	Age 30 to 34 Years	Age 35 to 39 Years	Age 40 to 44 Years	Age 45 to 49 Years	Age 50 to 54 Years	Age 55 to 59 Years	Age 60 to 64 Years	Age 65 to 69 Years	Age 70 to 74 Years	Age 75 to 79 Years	Age 80 to 84 Years	Age 85 to 89 Years	Age 90 to 94 Years	Age 95 to 99 Years	Age 100 to 104 Years	Age 105 to 109 Years	Age 110 to 114 Years	Age 115 to 119 Years	Age 120 to 124 Years	Age 125 to 129 Years	Age 130 to 134 Years	Age 135 to 139 Years	Age 140 to 144 Years	Age 145 to 149 Years	Age 150 to 154 Years	Age 155 to 159 Years	Age 160 to 164 Years	Age 165 to 169 Years	Age 170 to 174 Years	Age 175 to 179 Years	Age 180 to 184 Years	Age 185 to 189 Years	Age 190 to 194 Years	Age 195 to 199 Years	Age 200 to 204 Years	Age 205 to 209 Years	Age 210 to 214 Years	Age 215 to 219 Years	Age 220 to 224 Years	Age 225 to 229 Years	Age 230 to 234 Years	Age 235 to 239 Years	Age 240 to 244 Years	Age 245 to 249 Years	Age 250 to 254 Years	Age 255 to 259 Years	Age 260 to 264 Years	Age 265 to 269 Years	Age 270 to 274 Years	Age 275 to 279 Years	Age 280 to 284 Years	Age 285 to 289 Years	Age 290 to 294 Years	Age 295 to 299 Years	Age 300 to 304 Years	Age 305 to 309 Years	Age 310 to 314 Years	Age 315 to 319 Years	Age 320 to 324 Years	Age 325 to 329 Years	Age 330 to 334 Years	Age 335 to 339 Years	Age 340 to 344 Years	Age 345 to 349 Years	Age 350 to 354 Years	Age 355 to 359 Years	Age 360 to 364 Years	Age 365 to 369 Years	Age 370 to 374 Years	Age 375 to 379 Years	Age 380 to 384 Years	Age 385 to 389 Years	Age 390 to 394 Years	Age 395 to 399 Years	Age 400 to 404 Years	Age 405 to 409 Years	Age 410 to 414 Years	Age 415 to 419 Years	Age 420 to 424 Years	Age 425 to 429 Years	Age 430 to 434 Years	Age 435 to 439 Years	Age 440 to 444 Years	Age 445 to 449 Years	Age 450 to 454 Years	Age 455 to 459 Years	Age 460 to 464 Years	Age 465 to 469 Years	Age 470 to 474 Years	Age 475 to 479 Years	Age 480 to 484 Years	Age 485 to 489 Years	Age 490 to 494 Years	Age 495 to 499 Years	Age 500 to 504 Years	Age 505 to 509 Years	Age 510 to 514 Years	Age 515 to 519 Years	Age 520 to 524 Years	Age 525 to 529 Years	Age 530 to 534 Years	Age 535 to 539 Years	Age 540 to 544 Years	Age 545 to 549 Years	Age 550 to 554 Years	Age 555 to 559 Years	Age 560 to 564 Years	Age 565 to 569 Years	Age 570 to 574 Years	Age 575 to 579 Years	Age 580 to 584 Years	Age 585 to 589 Years	Age 590 to 594 Years	Age 595 to 599 Years	Age 600 to 604 Years	Age 605 to 609 Years	Age 610 to 614 Years	Age 615 to 619 Years	Age 620 to 624 Years	Age 625 to 629 Years	Age 630 to 634 Years	Age 635 to 639 Years	Age 640 to 644 Years	Age 645 to 649 Years	Age 650 to 654 Years	Age 655 to 659 Years	Age 660 to 664 Years	Age 665 to 669 Years	Age 670 to 674 Years	Age 675 to 679 Years	Age 680 to 684 Years	Age 685 to 689 Years	Age 690 to 694 Years	Age 695 to 699 Years	Age 700 to 704 Years	Age 705 to 709 Years	Age 710 to 714 Years	Age 715 to 719 Years	Age 720 to 724 Years	Age 725 to 729 Years	Age 730 to 734 Years	Age 735 to 739 Years	Age 740 to 744 Years	Age 745 to 749 Years	Age 750 to 754 Years	Age 755 to 759 Years	Age 760 to 764 Years	Age 765 to 769 Years	Age 770 to 774 Years	Age 775 to 779 Years	Age 780 to 784 Years	Age 785 to 789 Years	Age 790 to 794 Years	Age 795 to 799 Years	Age 800 to 804 Years	Age 805 to 809 Years	Age 810 to 814 Years	Age 815 to 819 Years	Age 820 to 824 Years	Age 825 to 829 Years	Age 830 to 834 Years	Age 835 to 839 Years	Age 840 to 844 Years	Age 845 to 849 Years	Age 850 to 854 Years	Age 855 to 859 Years	Age 860 to 864 Years	Age 865 to 869 Years	Age 870 to 874 Years	Age 875 to 879 Years	Age 880 to 884 Years	Age 885 to 889 Years	Age 890 to 894 Years	Age 895 to 899 Years	Age 900 to 904 Years	Age 905 to 909 Years	Age 910 to 914 Years	Age 915 to 919 Years	Age 920 to 924 Years	Age 925 to 929 Years	Age 930 to 934 Years	Age 935 to 939 Years	Age 940 to 944 Years	Age 945 to 949 Years	Age 950 to 954 Years	Age 955 to 959 Years	Age 960 to 964 Years	Age 965 to 969 Years	Age 970 to 974 Years	Age 975 to 979 Years	Age 980 to 984 Years	Age 985 to 989 Years	Age 990 to 994 Years	Age 995 to 999 Years	Age 1000 to 1004 Years	Age 1005 to 1009 Years	Age 1010 to 1014 Years	Age 1015 to 1019 Years	Age 1020 to 1024 Years	Age 1025 to 1029 Years	Age 1030 to 1034 Years	Age 1035 to 1039 Years	Age 1040 to 1044 Years	Age 1045 to 1049 Years	Age 1050 to 1054 Years	Age 1055 to 1059 Years	Age 1060 to 1064 Years	Age 1065 to 1069 Years	Age 1070 to 1074 Years	Age 1075 to 1079 Years	Age 1080 to 1084 Years	Age 1085 to 1089 Years	Age 1090 to 1094 Years	Age 1095 to 1099 Years	Age 1100 to 1104 Years	Age 1105 to 1109 Years	Age 1110 to 1114 Years	Age 1115 to 1119 Years	Age 1120 to 1124 Years	Age 1125 to 1129 Years	Age 1130 to 1134 Years	Age 1135 to 1139 Years	Age 1140 to 1144 Years	Age 1145 to 1149 Years	Age 1150 to 1154 Years	Age 1155 to 1159 Years	Age 1160 to 1164 Years	Age 1165 to 1169 Years	Age 1170 to 1174 Years	Age 1175 to 1179 Years	Age 1180 to 1184 Years	Age 1185 to 1189 Years	Age 1190 to 1194 Years	Age 1195 to 1199 Years	Age 1200 to 1204 Years	Age 1205 to 1209 Years	Age 1210 to 1214 Years	Age 1215 to 1219 Years	Age 1220 to 1224 Years	Age 1225 to 1229 Years	Age 1230 to 1234 Years	Age 1235 to 1239 Years	Age 1240 to 1244 Years	Age 1245 to 1249 Years	Age 1250 to 1254 Years	Age 1255 to 1259 Years	Age 1260 to 1264 Years	Age 1265 to 1269 Years	Age 1270 to 1274 Years	Age 1275 to 1279 Years	Age 1280 to 1284 Years	Age 1285 to 1289 Years	Age 1290 to 1294 Years	Age 1295 to 1299 Years	Age 1300 to 1304 Years	Age 1305 to 1309 Years	Age 1310 to 1314 Years	Age 1315 to 1319 Years	Age 1320 to 1324 Years	Age 1325 to 1329 Years	Age 1330 to 1334 Years	Age 1335 to 1339 Years	Age 1340 to 1344 Years	Age 1345 to 1349 Years	Age 1350 to 1354 Years	Age 1355 to 1359 Years	Age 1360 to 1364 Years	Age 1365 to 1369 Years	Age 1370 to 1374 Years	Age 1375 to 1379 Years	Age 1380 to 1384 Years	Age 1385 to 1389 Years	Age 1390 to 1394 Years	Age 1395 to 1399 Years	Age 1400 to 1404 Years	Age 1405 to 1409 Years	Age 1410 to 1414 Years	Age 1415 to 1419 Years	Age 1420 to 1424 Years	Age 1425 to 1429 Years	Age 1430 to 1434 Years	Age 1435 to 1439 Years	Age 1440 to 1444 Years	Age 1445 to 1449 Years	Age 1450 to 1454 Years	Age 1455 to 1459 Years	Age 1460 to 1464 Years	Age 1465 to 1469 Years	Age 1470 to 1474 Years	Age 1475 to 1479 Years	Age 1480 to 1484 Years	Age 1485 to 1489 Years	Age 1490 to 1494 Years	Age 1495 to 1499 Years	Age 1500 to 1504 Years	Age 1505 to 1509 Years	Age 1510 to 1514 Years	Age 1515 to 1519 Years	Age 1520 to 1524 Years	Age 1525 to 1529 Years	Age 1530 to 1534 Years	Age 1535 to 1539 Years	Age 1540 to 1544 Years	Age 1545 to 1549 Years	Age 1550 to 1554 Years	Age 1555 to 1559 Years	Age 1560 to 1564 Years	Age 1565 to 1569 Years	Age 1570 to 1574 Years	Age 1575 to 1579 Years	Age 1580 to 1584 Years	Age 1585 to 1589 Years	Age 1590 to 1594 Years	Age 1595 to 1599 Years	Age 1600 to 1604 Years	Age 1605 to 1609 Years	Age 1610 to 1614 Years	Age 1615 to 1619 Years	Age 1620 to 1624 Years	Age 1625 to 1629 Years	Age 1630 to 1634 Years	Age 1635 to 1639 Years	Age 1640 to 1644 Years	Age 1645 to 1649 Years	Age 1650 to 1654 Years	Age 1655 to 1659 Years	Age 1660 to 1664 Years	Age 1665 to 1669 Years	Age 1670 to 1674 Years	Age 1675 to 1679 Years	Age 1680 to 1684 Years	Age 1685 to 1689 Years	Age 1690 to 1694 Years	Age 1695 to 1699 Years	Age 1700 to 1704 Years	Age 1705 to 1709 Years	Age 1710 to 1714 Years	Age 1715 to 1719 Years	Age 1720 to 1724 Years	Age 1725 to 1729 Years	Age 1730 to 1734 Years	Age 1735 to 1739 Years	Age 1740 to 1744 Years	Age 1745 to 1749 Years	Age 1750 to 1754 Years	Age 1755 to 1759 Years	Age 1760 to 1764 Years	Age 1765 to 1769 Years	Age 1770 to 1774 Years	Age 1775 to 1779 Years	Age 1780 to 1784 Years	Age 1785 to 1789 Years	Age 1790 to 1794 Years	Age 1795 to 1799 Years	Age 1800 to 1804 Years	Age 1805 to 1809 Years	Age 1810 to 1814 Years	Age 1815 to 1819 Years	Age 1820 to 1824 Years	Age 1825 to 1829 Years	Age 1830 to 1834 Years	Age 1835 to 1839 Years	Age 1840 to 1844 Years	Age 1845 to 1849 Years	Age 1850 to 1854 Years	Age 1855 to 1859 Years	Age 1860 to 1864 Years	Age 1865 to 1869 Years	Age 1870 to 1874 Years	Age 1875 to 1879 Years	Age 1880 to 1884 Years	Age 1885 to 1889 Years	Age 1890 to 1894 Years	Age 1895 to 1899 Years	Age 1900 to 1904 Years	Age 1905 to 1909 Years	Age 1910 to 1914 Years	Age 1915 to 1919 Years	Age 1920 to 1924 Years	Age 1925 to 1929 Years	Age 1930 to 1934 Years	Age 1935 to 1939 Years	Age 1940 to 1944 Years	Age 1945 to 1949 Years	Age 1950 to 1954 Years	Age 1955 to 1959 Years	Age 1960 to 1964 Years	Age 1965 to 1969 Years	Age 1970 to 1974 Years	Age 1975 to 1979 Years	Age 1980 to 1984 Years	Age 1985 to 1989 Years	Age 1990 to 1994 Years	Age 1995 to 1999 Years	Age 2000 to 2004 Years	Age 2005 to 2009 Years	Age 2010 to 2014 Years	Age 2015 to 2019 Years	Age 2020 to 2024 Years	Age 2025 to 2029 Years	Age 2030 to 2034 Years	Age 2035 to 2039 Years	Age 2040 to 2044 Years	Age 2045 to 2049 Years	Age 2050 to 2054 Years	Age 2055 to 2059 Years	Age 2060 to 2064 Years	Age 2065 to 2069 Years	Age 2070 to 2074 Years	Age 2075 to 2079 Years	Age 2080 to 2084 Years	Age 2085 to 2089 Years	Age 2090 to 2094 Years	Age 2095 to 2099 Years	Age 2100 to 2104 Years	Age 2105 to 2109 Years	Age 2110 to 2114 Years	Age 2115 to 2119 Years	Age 2120 to 2124 Years	Age 2125 to 2129 Years	Age 2130 to 2134 Years	Age 2135 to 2139 Years	Age 2140 to 2144 Years	Age 2145 to 2149 Years	Age 2150 to 2154 Years	Age 2155 to 2159 Years	Age 2160 to 2164 Years	Age 2165 to 2169 Years	Age 2170 to 2174 Years	Age 2175 to 2179 Years	Age 2180 to 2184 Years	Age 2185 to 2189 Years	Age 2190 to 2194 Years	Age 2195 to 2199 Years	Age 2200 to 2204 Years	Age 2205 to 2209 Years	Age 2210 to 2214 Years	Age 2215 to 2219 Years	Age 2220 to 2224 Years	Age 2225 to 2229 Years	Age 2230 to 2234 Years	Age 2235 to 2239 Years	Age 2240 to 2244 Years	Age 2245 to 2249 Years	Age 2250 to 2254 Years	Age 2255 to 2259 Years	Age 2260 to 2264 Years	Age 2265 to 2269 Years	Age 2270 to 2274 Years	Age 2275 to 2279 Years	Age 2280 to 2284 Years	Age 2285 to 2289 Years	Age 2290 to 2294 Years	Age 2295 to 2299 Years	Age 2300 to 2304 Years	Age 2305 to 2309 Years	Age 2310 to 2314 Years	Age 2315 to 2319 Years	Age 2320 to 2324 Years	Age 2325 to 2329 Years	Age 2330 to 2334 Years	Age 2335 to 2339 Years	Age 2340 to 2344 Years	Age 2345 to 2349 Years	Age 2350 to 2354 Years	Age 2355 to 2359 Years	Age 2360 to 2364 Years	Age 2365 to 2369 Years	Age 2370 to 2374 Years	Age 2375 to 2379 Years	Age 2380 to 2384 Years	Age 2385 to 2389 Years	Age 2390 to 2394 Years	Age 2395 to 2399 Years	Age 2400 to 2404 Years	Age 2405 to 2409 Years	Age 2410 to 2414 Years	Age 2415 to 2419 Years	Age 2420 to 2424 Years	Age 2425 to 2429 Years	Age 2430 to 2434 Years	Age 2435 to 2439 Years	Age 2440 to 2444 Years	Age 2445 to 2449 Years	Age 2450 to 2454 Years	Age 2455 to 2459 Years	Age 2460 to 2464 Years	Age 2465 to 2469 Years	Age 2470 to 2474 Years	Age 2475 to 2479 Years	Age 2480 to 2484 Years	Age 2485 to 2489 Years	Age 2490 to 2494 Years	Age 2495 to 2499 Years	Age 2500 to 2504 Years	Age 2505 to 2509 Years	Age 2510 to 2514 Years	Age 2515 to 2519 Years	Age 2520 to 2524 Years	Age 2525 to 2529 Years	Age 2530 to 2534 Years	Age 2535 to 2539 Years	Age 2540 to 2544 Years	Age 2545 to 2549 Years	Age 2550 to 2554 Years	Age 2555 to 2559 Years	Age 2560 to 2564 Years	Age 2565 to 2569 Years	Age 2570 to 2574 Years	Age 2575 to 2579 Years	Age 2580 to 2584 Years	Age 2585 to 2589 Years	Age 2590 to 2594 Years	Age 2595 to 2599 Years	Age 2600 to 2604 Years	Age 2605 to 2609 Years	Age 2610 to 2614 Years	Age 2615 to 2619 Years	Age 2620 to 2624 Years	Age 2625 to 2629 Years	Age 2630 to 2634 Years	Age 2635 to 2639 Years	Age 2640 to 2644 Years	Age 2645 to 2649 Years	Age 2650 to 2654 Years	Age 2655 to 2659 Years	Age 2660 to 2664 Years	Age 2665 to 2669 Years	Age 2670 to 2674 Years	Age 2675 to 2679 Years	Age 2680 to 2684 Years	Age 2685 to 2689 Years	Age 2690 to 2694 Years	Age 2695 to 2699 Years	Age 2700 to 2704 Years	Age 2705 to 2709 Years	Age 2710 to 2714 Years	Age 2715 to 2719 Years	Age 2720 to 2724 Years	Age 2725 to 2729 Years	Age 2730 to 2734 Years	Age 2735 to 2739 Years	Age 2740 to 2744 Years	Age 2745 to 2749 Years	Age 2750 to 2754 Years	Age 2755 to 2759 Years	Age 2760 to 2764 Years	Age 2765 to 2769 Years	Age 2770 to 2774 Years	Age 2775 to 2779 Years	Age 2780 to 2784 Years	Age 2785 to 2789 Years	Age 2790 to 2794 Years	Age 2795 to 2799 Years	Age 2800 to 2804 Years	Age 2805 to 2809 Years	Age 2810 to 2814 Years	Age 2815 to 2819 Years	Age 2820 to 2824 Years	Age 2825 to 2829 Years	Age 2830 to 2834 Years	Age 2835 to 2839 Years	Age 2840 to 2844 Years	Age 2845 to 2849 Years	Age 2850 to 2854 Years	Age 2855 to 2859 Years	Age 2860 to 2864 Years	Age 2865 to 2869 Years	Age 2870 to 2874 Years	Age 2875 to 2879 Years	Age 2880 to 2884 Years	Age 2885 to 2889 Years	Age 2890 to 2894 Years	Age 2895 to 2899 Years	Age 2900 to 2904 Years	Age 2905 to 2909 Years	Age 2910 to 2914 Years	Age 2915 to 2919 Years	Age 2920 to 2924 Years	Age 2925 to 2929 Years	Age 2930 to 2934 Years	Age 2935 to 2939 Years	Age 2940 to 2944 Years	Age 2945 to 2949 Years	Age 2950 to 2954 Years	Age 2955 to 2959 Years	Age 2960 to 2964 Years	Age 2965 to 2969 Years	Age 2970 to 2974 Years	Age 2975 to 2979 Years	Age 2980 to 2984 Years	Age 2985 to 2989 Years	Age 2990 to 2994 Years	Age 2995 to 2999 Years	Age 3000 to 3004 Years	Age 3005 to 3009 Years	Age 3010 to 3014 Years	Age 3015 to 3019 Years	Age 3020 to 3024 Years	Age 3025 to 3029 Years	Age 3030 to 3034 Years	Age 3035 to 3039 Years	Age 3040 to 3044 Years	Age 3045 to 3049 Years	Age 3050 to 3054 Years
-----------------	--------------------	--	--	--	--	--	-------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------	------------------------

ORGANIZATION OF AN INFANTRY BATTALION

Annex F



NOTE: The organizational chart is for a standard infantry battalion. The actual organization may vary depending on the specific unit and its mission.

TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Position	Personnel	Major Equipment
Battalion Commander	1	1
Staff Sergeant	4	4
Platoon Leader	8	8
Squad Leader	20	20
Private	100	100
Private First Class	100	100
Private Second Class	100	100
Private Third Class	100	100
Private Fourth Class	100	100
Private Fifth Class	100	100
Private Sixth Class	100	100
Private Seventh Class	100	100
Private Eighth Class	100	100
Private Ninth Class	100	100
Private Tenth Class	100	100

ORGANIZATION OF AN AIRBORNE DIVISION

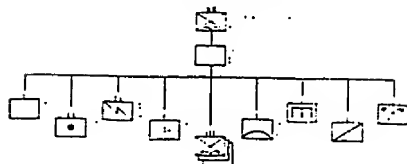
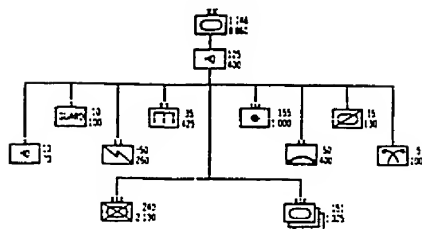


TABLE OF PERSONNEL AND MAJOR EQUIPMENT:

5



1

[illegible]

2 Amount of requirement not available

- Includes 7 ambulances and 3 radio trucks

ORGANIZATION OF AN ARMORED REGIMENT, ARMORED DIVISION Annex I

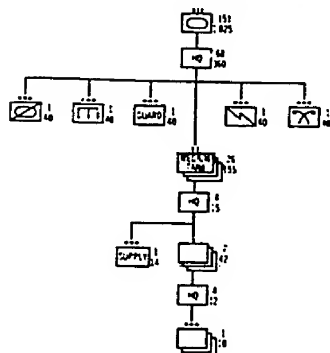


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Personnel (Equivalent)	Major Equipment											Total Major Equipment
	Total Personnel	Infantry	Armor	Artillery	Engineers	Medical	Transport	Communications	Signal	Supply	Other	
Officers	151	10	15	15	10	10	10	10	10	10	10	10
Enlisted Personnel	1329	20	20	30	140	130	20	40	40	40	40	400
Total Personnel	1480	30	35	45	150	140	30	50	50	50	50	540
Tank Battalion	70	1										99
Armored Reconnaissance	4											
Armored Reconnaissance	5											
Truck Cargo	60											
Truck Transport	12	1										21
Motorcycles in Support	10											
Officer Equipment Vehicle	8											
Officer Communication Vehicle	1											
Radio Message Forwarder	11											
Radio Vehicle Forwarder	152	2										161

1. Amount of equipment not available

Appendix 1

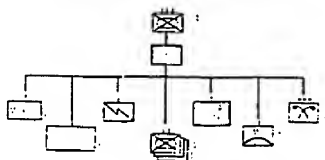


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

[illegible]

Appendix B

ORGANIZATION OF AN ARTILLERY DIVISION

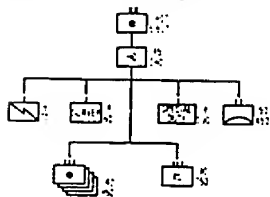


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Program Component	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	3135	3136	3137	3138	3139	3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155	3156	3157	3158	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173	3174	3175	3176	3177	3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194	3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210	3211	3212	3213	3214	3215	3216	3217	3218	3219	3220	3221	3222	3223	3224	3225	3226	3227	3228	3229	3230	3231	3232	3233	3234	3235	3236	3237	3238	3239	3240	3241	3242	3243	3244	3245	3246	3247	3248	3249	3250	3251	3252	3253	3254	3255	3256	3257	3258	3259	3260	3261	3262	3263	3264	3265	3266	3267	3268	3269	3270	3271	3272	3273	3274	3275	3276	3277	3278	3279	3280	3281	3282	3283	3284	3285	3286	3287	3288	3289	3290	3291	3292	3293	3294	3295	3296	3297	3298	3299	3300	3301	3302	3303	3304	3305	3306	3307	3308	3309	3310	3311	3312	3313	3314	3315	3316	3317	3318	3319	3320	3321	3322	3323	3324	3325	3326	3327	3328	3329	3330	3331	3332	3333	3334	3335	3336	3337	3338	3339	3340	3341	3342	3343	3344	3345	3346	3347	3348	3349	3350	3351	3352	3353	3354	3355	3356	3357	3358	3359	3360	3361	3362	3363	3364</
-------------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	--------

[illegible]

Appendix I

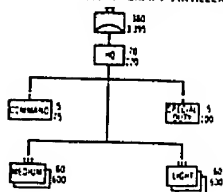


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Particulars	1979 Rs '000	1980 Rs '000	1981 Rs '000	1982 Rs '000	1983 Rs '000	1984 Rs '000
1. Salaries	100	120	150	180	200	220
2. Fuel & Transport	150	170	190	210	230	250
3. Telephone	20	25	30	35	40	45
4. Medical	10	12	15	18	20	22
5. Entertainment	5	6	7	8	9	10
6. Office Expenses	30	35	40	45	50	55
7. Repairs & Maintenance	10	12	15	18	20	22
8. Depreciation	5	6	7	8	9	10
9. Miscellaneous	10	12	15	18	20	22
10. Total	310	360	430	500	560	620
11. Income	200	250	300	350	400	450
12. Profit	110	110	130	150	160	170

1. *Journal of the American Medical Association*, 1997; 278: 1011-1012.

ORGANIZATION OF AN ANTI-AIRCRAFT ARTILLERY DIVISION

Annex M

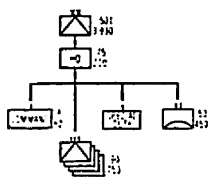


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Personnel Equipment	Total Person	Headquarters Person	Company Person	Special Duty Person	AA Person	AA Equipment
Division	15	15	0	0	0	0
1st AA Bn	100	10	80	10	0	0
2nd AA Bn	100	10	80	10	0	0
3rd AA Bn	100	10	80	10	0	0
4th AA Bn	100	10	80	10	0	0
1st AA Bn Co A	25	0	25	0	0	0
1st AA Bn Co B	25	0	25	0	0	0
1st AA Bn Co C	25	0	25	0	0	0
1st AA Bn HQ	10	10	0	0	0	0
2nd AA Bn Co A	25	0	25	0	0	0
2nd AA Bn Co B	25	0	25	0	0	0
2nd AA Bn Co C	25	0	25	0	0	0
2nd AA Bn HQ	10	10	0	0	0	0
3rd AA Bn Co A	25	0	25	0	0	0
3rd AA Bn Co B	25	0	25	0	0	0
3rd AA Bn Co C	25	0	25	0	0	0
3rd AA Bn HQ	10	10	0	0	0	0
4th AA Bn Co A	25	0	25	0	0	0
4th AA Bn Co B	25	0	25	0	0	0
4th AA Bn Co C	25	0	25	0	0	0
4th AA Bn HQ	10	10	0	0	0	0
Total	415	40	320	40	0	0

ORGANIZATION OF AN ENGINEER REGIMENT

Annex N

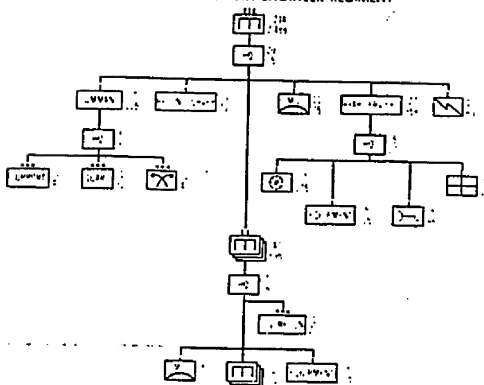


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

1990-1991															1991-1992															1992-1993															1993-1994															1994-1995															1995-1996															1996-1997															1997-1998															1998-1999															1999-2000															2000-2001															2001-2002															2002-2003															2003-2004															2004-2005															2005-2006															2006-2007															2007-2008															2008-2009															2009-2010															2010-2011															2011-2012															2012-2013															2013-2014															2014-2015															2015-2016															2016-2017															2017-2018															2018-2019															2019-2020															2020-2021															2021-2022															2022-2023															2023-2024															2024-2025															2025-2026															2026-2027															2027-2028															2028-2029															2029-2030															2030-2031															2031-2032															2032-2033															2033-2034															2034-2035															2035-2036															2036-2037															2037-2038															2038-2039															2039-2040															2040-2041															2041-2042															2042-2043															2043-2044															2044-2045															2045-2046															2046-2047															2047-2048															2048-2049															2049-2050															2050-2051															2051-2052															2052-2053															2053-2054															2054-2055															2055-2056															2056-2057															2057-2058															2058-2059															2059-2060															2060-2061															2061-2062															2062-2063															2063-2064															2064-2065															2065-2066															2066-2067															2067-2068															2068-2069															2069-2070															2070-2071															2071-2072															2072-2073															2073-2074															2074-2075															2075-2076															2076-2077															2077-2078															2078-2079															2079-2080															2080-2081															2081-2082															2082-2083															2083-2084															2084-2085															2085-2086															2086-2087															2087-2088															2088-2089															2089-2090															2090-2091															2091-2092															2092-2093															2093-2094															2094-2095															2095-2096															2096-2097															2097-2098															2098-2099															2099-2100															2100-2101															2101-2102															2102-2103															2103-2104															2104-2105															2105-2106															2106-2107															2107-2108															2108-2109															2109-2110															2110-2111															2111-2112															2112-2113															2113-2114															2114-2115															2115-2116															2116-2117															2117-2118															2118-2119															2119-2120															2120-2121															2121-2122															2122-2123															2123-2124															2124-2125															2125-2126															2126-2127															2127-2128															2128-2129															2129-2130															2130-2131															2131-2132															2132-2133															2133-2134															2134-2135															2135-2136															2136-2137															2137-2138															2138-2139															2139-2140															2140-2141															2141-2142															2142-2143															2143-2144															2144-2145															2145-2146															2146-2147															2147-2148															2148-2149															2149-2150															2150-2151															2151-2152															2152-2153															2153-2154															2154-2155															2155-2156															2156-2157															2157-2158															2158-2159															2159-2160															2160-2161															2161-2162															2162-2163															2163-2164															2164-2165															2165-2166															2166-2167															2167-2168															2168-2169															2169-2170															2170-2171															2171-2172															2172-2173															2173-2174															2174-2175															2175-2176															2176-2177															2177-2178															2178-2179															2179-2180															2180-2181															2181-2182															2182-2183															2183-2184															2184-2185															2185-2186															2186-2187															2187-2188															2188-2189															2189-2190															2190-2191															2191-2192															2192-2193															2193-2194															2194-2195															2195-2196															2196-2197															2197-2198															2198-2199															2199-2200															2200-2201															2201-2202															2202-2203															2203-2204															2204-2205															2205-2206															2206-2207															2207-2208															2208-2209															2209-2210															2210-2211															2211-2212															2212-2213															2213-2214															2214-2215															2215-2216															2216-2217															2217-2218															2218-2219															2219-2220															2220-2221															2221-2222															2222-2223															2223-2224															2224-2225															2225-2226															2226-2227															2227-2228															2228-2229															2229-2230															2230-2231															2231-2232															2232-2233															2233-2234															2234-2235															2235-2236															2236-2237															2237-2238															2238-2239															2239-2240															2240-2241															2241-2242															2242-2243															2243-2244															2244-2245															2245-2246															2246-2247															2247-2248															2248-2249															2249-2250															2250-2251															2251-2252															2252-2253															2253-2254															2254-2255															2255-2256															2256-2257															2257-2258															2258-2259															2259-2260															2260-2261															2261-2262															2262-2263															2263-2264															2264-2265															2265-2266															2266-2267															2267-2268															2268-2269															2269-2270															2270-2271															2271-2272															2272-2273															2273-2274															2274-2275															2275-2276															2276-2277															2277-2278															2278-2279															2279-2280															2280-2281															2281-2282															2282-2283															2283-2284															2284-2285															2285-2286															2286-2287															2287-2288															2288-2289															2289-2290															2290-2291															2291-2292															2292-2293															2293-2294															2294-2295															2295-2296															2296-2297															2297-2298															2298-2299															2299-2300															2300-2301															2301-2302															2302-2303															2303-2304															2304-2305															2305-2306															2306-2307															2307-2308															2308-2309															2309-2310															2310-2311															2311-2312															2312-2313															2313-2314															2314-2315															2315-2316															2316-2317															2317-2318															2318-2319															2319-2320															2320-2321															2321-2322															2322-2323															2323-2324															2324-2325															2325-2326															2326-2327															2327-2328															2328-2329															2329-2330															2330-2331															2331-2332															2332-2333															2333-2334															2334-2335															2335-2336															2336-2337															2337-2338															2338-2339															2339-2340															2340-2341															2341-2342															2342-2343															2343-2344															2344-2345															2345-2346															2346-2347															2347-2348															2348-2349															2349-2350															2350-2351															2351-2352															2352-2353															2353-2354															2354-2355															2355-2356															2356-2357															2357-2358															2358-2359															2359-2360															2360-2361															2361-2362															2362-2363															2363-2364															2364-2365															2365-2366															2366-2367															2367-2368															2368-2369															2369-2370															2370-2371															2371-2372															2372-2373															2373-2374															2374-2375															2375-2376															2376-2377															2377-2378															2378-2379															2379-2380															2380-2381															2381-2382															2382-2383															2383-2384															2384-2385															2385-2386															2386-2387															2387-2388															2388-2389															2389-2390															2390-2391															2391-2392															2392-2393															2393-2394															2394-2395															2395-2396															2396-2397															2397-2398															2398-2399															2399-2400															2400-2401															2401-2402															2402-2403															2403-2404															2404-2405															2405-2406															2406-2407															2407-2408															2408-2409															2409-2410															2410-2411															2411-2412															2412-2413															2413-2414															2414-2415															2415-2416															2416-2417															2417-2418															2418-2419															2419-2420															2420-2421															2421-2422															2422-2423															2423-2424															2424-2425															2425-2426															2426-2427															2427-2428															2428-2429															2429-2430															2430-2431															2431-2432															2432-2433															2433-2434															2434-2435															2435-2436															2436-2437															2437-2438															2438-2439															2439-2440															2440-2441															2441-2442															2442-2443															2443-2444															2444-2445															2445-2446															2446-2447															2447-2448															2448-2449															2449-2450															2450-2451															2451-2452															2452-2453															2453-2454															2454-2455															2455-2456															2456-2457															2457-2458															2458-2459															2459-2460															2460-2461															2461-2462															2462-2463															2463-2464															2464-2465															2465-2466															2466-2467															2467-2468															2468-2469															2469-2470															2470-2471															2471-2472															2472-2473															2473-2474															2474-2475															2475-2476															2476-2477															2477-2478															2478-2479															2479-2480															2480-2481															2481-2482															2482-2483															2483-2484															2484-2485															2485-2486															2486-2487															2487-2488															2488-2489															2489-2490															2490-2491															2491-2492															2492-2493															2493-2494															2494-2495															2495-2496															2496-2497															2497-2498															2498-2499															2499-2500															2500-2501															2501-2502															2502-2503															2503-2504															2504-2505															2505-2506															2506-2507															2507-2508															2508-2509															2509-2510															2510-2511															2511-2512															2512-2513															2513-2514															2514-2515															2515-2516															2516-2517															2517-2518															2518-2519															2519-2520															2520-2521															2521-2522															2522-2523															2523-2524															2524-2525															2525-2526															2526-2527															2527-2528															2528-2529															2529-2530															2530-2531															2531-2532															2532-2533															2533-2534															2534-2535															2535-2536															2536-2537															2537-2538															2538-2539															2539-2540															2540-2541															2541-2542															2542-2543															2543-2544															2544-2545															2545-2546															2546-2547															2547-2548															2548-2549															2549-2550															2550-2551															2551-2552															2552-2553															2553-2554															2554-2555															2555-2556															2556-2557															2557-2558															2558-2559															2559-2560															2560-2561															2561-2562															2562-2563															2563-2564															2564-2565															2565-2566															2566-2567															2567-2568															2568-2569															2569-2570															2570-2571															2571-2572															2572-2573															2573-2574															2574-2575															2575-2576															2576-2577															2577-2578															2578-2579															2579-2580															2580-2581															2581-2582															2582-2583															2583-2584															2584-2585															2585-2586															2586-2587															2587-2588															2588-2589															2589-2590															2590-2591															2591-2592															2592-2593															2593-2594															2594-2595															2595-2596															2596-2597															2597-2598															2598-2599															2599-2600															2600-2601															2601-2602															2602-2603															2603-2604															2604-2605															2605-2606															2606-2607															2607-2608															2608-2609															2609-2610															2610-2611															2611-2612															2612-2613															2613-2614															2614-2615															2615-2616															2616-2617															2617-2618															2618-2619															2619-2620															2620-2621															2621-2622															2622-2623															2623-2624															2624-2625															2625-2626															2626-2627															2627-2628															2628-2629															2629-2630															2630-2631															2631-2632															2632-2633															2633-2634															2634-2635															2635-2636															2636-2637															2637-2638															2638-2639															2639-2640															2640-2641															2641-2642															2642-2643															2643-2644															2644-2645															2645-2646															2646-2647															2647-2648															2648-2649															2649-2650															2650-2651															2651-2652															2652-2653															2653-2654															2654-2655															2655-2656															2656-2657															2657-2658															2658-2659															2659-2660															2660-2661															2661-2662															2662-2663															2663-2664															2664-2665															2665-2666															2666-2667															2667-2668															2668-2669															2669-2670															2670-2671															2671-2672															2672-2673															2673-2674															2674-2675															2675-2676															2676-2677															2677-267														
-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Annex Q

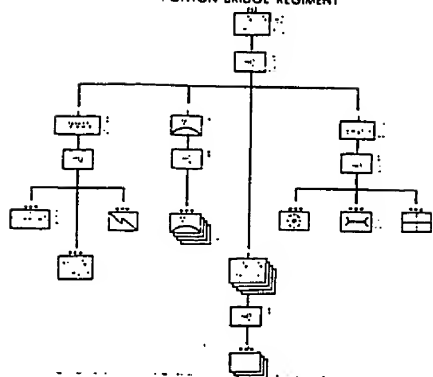
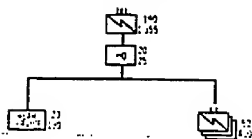


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

[illegible]

Annex P

ORGANIZATION OF A SIGNAL REGIMENT



NOTE: THE SIGNAL REGIMENT PROVIDES COMMUNICATIONS FOR MILITARY REGION AND MILITARY COUNTRIES MANAGING THE SIGNAL REGIMENT AND EQUIPMENT ACCORDING TO THE NEEDS OF THE AREA THE REGIMENT SERVES.

Annex Q

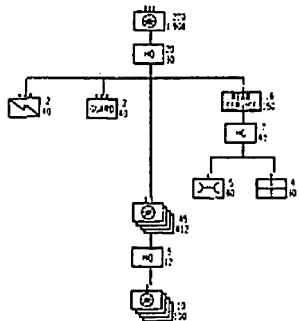


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Program Element	Total Wt kg	mg kg	14 g	Quar g	Rate	Total Wt kg
Initial	157	59	7	2	76	182
Initial Sample	170	95	82	83	153	188
Total Program	2274	50	42	42	166	1929
Initial Fuel	172	18	2	1	12	188
Initial Air Cargo	1630	20	80	10	120	1620
Initial MG	1			1		
Total Cargo	172				2	180
Total Air Cargo	14				2	16
Air Cargo	14				2	12
Amplifier	1				1	
Antenna	14	2				12
Radiation Monitor	25	4		1		20
Antenna	6	2				4
Total Program	50		12			18

Anne & R

ORGANIZATION OF A RAILWAY ENGINEER DIVISION

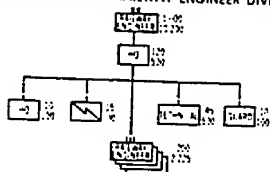


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Variable	Mean	Std. Deviation	Minimum	Maximum
Age	34.28	12.14	18	65
Gender	1.00	.00	1	1
Marital Status	2.10	.30	1	3
Religious Beliefs	2.10	.30	1	3
Political Beliefs	2.10	.30	1	3
Education	12.50	2.50	9	16
Income	3.50	.50	3	4
Occupation	1.50	.50	1	3
Health	2.50	.50	1	3
Stress	2.50	.50	1	3
Life Satisfaction	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4
Personal Time	3.50	.50	3	4
Work Time	3.50	.50	3	4
Commute Time	3.50	.50	3	4
Exercise Time	3.50	.50	3	4
Meal Time	3.50	.50	3	4
Hygiene Time	3.50	.50	3	4
Work-Life Balance	3.50	.50	3	4
Family Time	3.50	.50	3	4

ORGANIZATION OF A BORDER DEFENSE DIVISION

Annex 5

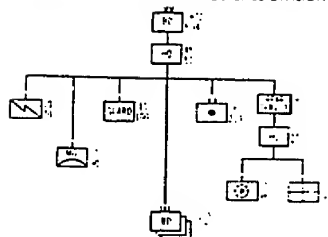


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Item	Quantity	Remarks
1. Personnel	100	
2. Major Equipment	100	
3. Personnel	100	
4. Major Equipment	100	
5. Personnel	100	
6. Major Equipment	100	
7. Personnel	100	
8. Major Equipment	100	
9. Personnel	100	
10. Major Equipment	100	
11. Personnel	100	
12. Major Equipment	100	
13. Personnel	100	
14. Major Equipment	100	
15. Personnel	100	
16. Major Equipment	100	
17. Personnel	100	
18. Major Equipment	100	
19. Personnel	100	
20. Major Equipment	100	
21. Personnel	100	
22. Major Equipment	100	
23. Personnel	100	
24. Major Equipment	100	
25. Personnel	100	
26. Major Equipment	100	
27. Personnel	100	
28. Major Equipment	100	
29. Personnel	100	
30. Major Equipment	100	
31. Personnel	100	
32. Major Equipment	100	
33. Personnel	100	
34. Major Equipment	100	
35. Personnel	100	
36. Major Equipment	100	
37. Personnel	100	
38. Major Equipment	100	
39. Personnel	100	
40. Major Equipment	100	
41. Personnel	100	
42. Major Equipment	100	
43. Personnel	100	
44. Major Equipment	100	
45. Personnel	100	
46. Major Equipment	100	
47. Personnel	100	
48. Major Equipment	100	
49. Personnel	100	
50. Major Equipment	100	
51. Personnel	100	
52. Major Equipment	100	
53. Personnel	100	
54. Major Equipment	100	
55. Personnel	100	
56. Major Equipment	100	
57. Personnel	100	
58. Major Equipment	100	
59. Personnel	100	
60. Major Equipment	100	
61. Personnel	100	
62. Major Equipment	100	
63. Personnel	100	
64. Major Equipment	100	
65. Personnel	100	
66. Major Equipment	100	
67. Personnel	100	
68. Major Equipment	100	
69. Personnel	100	
70. Major Equipment	100	
71. Personnel	100	
72. Major Equipment	100	
73. Personnel	100	
74. Major Equipment	100	
75. Personnel	100	
76. Major Equipment	100	
77. Personnel	100	
78. Major Equipment	100	
79. Personnel	100	
80. Major Equipment	100	
81. Personnel	100	
82. Major Equipment	100	
83. Personnel	100	
84. Major Equipment	100	
85. Personnel	100	
86. Major Equipment	100	
87. Personnel	100	
88. Major Equipment	100	
89. Personnel	100	
90. Major Equipment	100	
91. Personnel	100	
92. Major Equipment	100	
93. Personnel	100	
94. Major Equipment	100	
95. Personnel	100	
96. Major Equipment	100	
97. Personnel	100	
98. Major Equipment	100	
99. Personnel	100	
100. Major Equipment	100	

Annex T

ORGANIZATION OF AN INTERNAL DEFENSE DIVISION

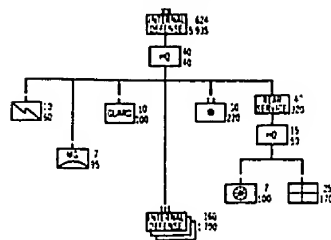


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Personnel (Equipment)	Total 100	20 20	20 20	20 20	20 20	20 20	20 20	20 20	20 20
Officers	624	42	20	20	20	20	20	20	624
Enlisted Personnel	5925	42	50	99	100	270	320	5120	
Total Personnel	6549	84	70	119	120	290	340	5540	
7.62mm MG	245				5			245	
7.62mm HMG	24							24	
12.7mm HMG	12				6			6	
57.5mm Recoilless Rifle	6							6	
60mm Mortar	41							41	
82mm Mortar	6							6	
70mm How Gun 85mm Gun									
122mm How	8					8			
Truck Cargo	79					14	50	25	
Truck 1/2 Tonne	6						1	3	
Ambulance	4								
Motorcycle + Sidecar	3		3						
Race Portable Mapcase	275		8			18		34	
Self-Heated	26		5			3		18	
Field Telephone	228		21			12		195	
Howers Mules	153					8		155	
Dogs	104				5			99	

1. Amount of equipment not available

ORGANIZATION OF A GARRISON DIVISION

Annex U

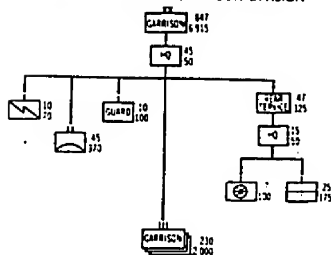
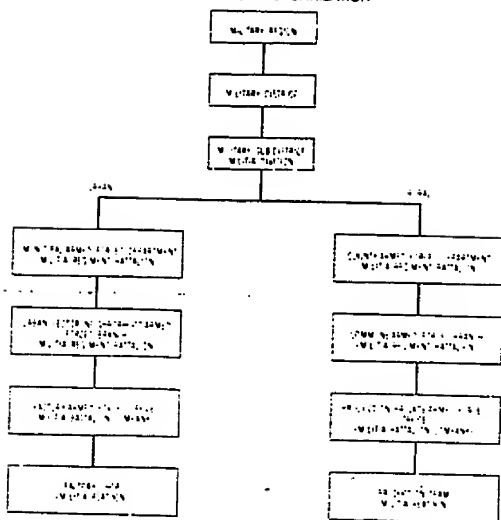


TABLE OF PERSONNEL AND MAJOR EQUIPMENT

Personnel Equipment	Total Tn 2+	Hq D+	Sq Co	AAA B+	Co Co	ASG	Other Co Regts etc
Officers	647	45	10	45	10	47	647
Enlisted Personnel	6915	50	10	100	100	125	6915
Total Personnel	7562	95	42	415	110	172	7562
7.62mm MG	124				5		89
7.62mm MG	46						44
12.7mm MG	15						15
82mm Mortar	44				2		42
15.7mm Recoilless Rifle	41						41
60mm Mortar	15						15
82mm Mortar	24						24
57mm AT Gun	24						24
15.7mm 100mm Gun							
15.7mm Gun Recoil	64						64
14.5mm MG	5			5			5
17mm AT Gun	15			15			15
Truck Cargo Prime Mover	33			5		29	45
Truck Transport	5					3	5
Ambulance	15					3	3
Medical Support	15		3				3
Star Transport Vehicle	15						15
Radio Portable Message	122		6	4		5	137
Field Telephone	210		21	29			260
Medical Wagon	157						157
Drill	44				5		49

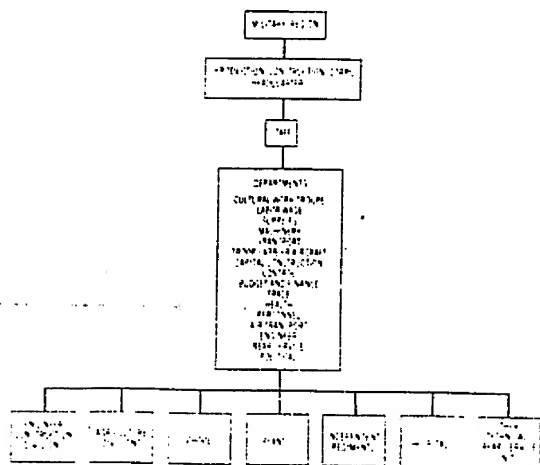
PROBABLE MILITIA ORGANIZATION



*ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY THE FOLLOWING NOTATIONS:
UNCLASSIFIED//FOR OFFICIAL USE ONLY
DATE 08-29-2007 BY 60322 UCBAW

NOTE: A NEW 100-FOOT M. P. A. STATEMENT IS BEING MADE WITH THE DISTRICT OF COLUMBIA TO BE MADE AND IS
WITH THE DISTRICT OF COLUMBIA IN 2004.

5



CHINESE GROUND FORCES EQUIPMENT




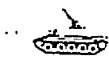
1. Chinese equipment policy is described in chapter 2, section II, and the technical characteristics are given in the appendices to this annex. In order to relate equipment to its deployment most of the appendices show the quantity (number) of equipment at the individual organizational level. Where possible, the annex pertaining to that organization is also indicated.

2. Only the main items of Chinese equipment are included; sketches are not to scale. The Chinese possess additional equipment and some of the older or less common items in the inventory are not listed.

- Appendices:
1. Armored Vehicles
 2. Infantry Weapons
 3. Artillery
 4. Engineer Equipment
 5. Signal Equipment
 6. Tracked Tractors
 7. Load-Carrying, Wheeled Vehicles
 8. Chemical Equipment

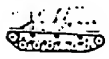


Appendix I to Annex X

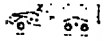
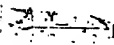
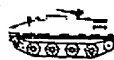
ARMORED VEHICLES

Designation	Technical Characteristics	Type	Numbers Organization	Reference Annex	Remarks
<p>Top 10</p> 	<p>Class 4</p> <p>Weight 22 tons</p> <p>Main armament 57mm</p> <p>Ammunition 1000</p> <p>APF</p> <p>AP</p> <p>HE</p> <p>SM</p>	<p>Light cruiser type</p>			<p>May be used as a tank battle tank in extreme tactical terrain conditions in South China</p>
<p>Top 11</p> 	<p>Class 4</p> <p>Weight 22 tons</p> <p>Main armament 57mm</p> <p>Ammunition 1000</p> <p>APF</p> <p>AP</p> <p>HE</p> <p>SM</p>	<p>Light cruiser type</p>	<p>4 & 6 motor 20 & 40 hp</p>		<p>Known as "Light" and used as a tank in South China. Also used as a tank. Also known as "Light" and "Light"</p>
<p>Top 12</p> 	<p>Class 4</p> <p>Weight 22 tons</p> <p>Main armament 57mm</p> <p>Ammunition 1000</p> <p>APF</p> <p>AP</p> <p>HE</p> <p>SM</p>	<p>Light cruiser type</p>			<p>May be used as a tank battle tank in extreme tactical terrain conditions in South China</p>
<p>Top 13</p> 	<p>Class 4</p> <p>Weight 22 tons</p> <p>Main armament 57mm</p> <p>Ammunition 1000</p> <p>APF</p> <p>AP</p> <p>HE</p> <p>SM</p>	<p>Light cruiser type</p>	<p>2 & 4 motor 10 & 20 hp</p>		<p>May be used as a tank battle tank in extreme tactical terrain conditions in South China</p>

Appendix I to Annex X
(continued)

ARMORED VEHICLES

Designation	Technical Characteristics				Number by Organization	Status by Source	Remarks
	Maximum length (meters)	Width (meters)	Weight (metric tons)	Maximum speed (km/h)			
U.S. 15		11.24	10.80	14	15.20	10 to 20 per country	1000 units in U.S.
U.S. 16		10.67	10.80	22	15.20		400 units in U.S.
U.S. 17		11.4	10.80	15	15.20		1000 units in U.S.

Designation	Technical Characteristics	Weight	Number by Organization	Status by Source	Remarks
U.S. 18	 Crew: 2 Max speed: 10 Armament: 12mm MG Armored: 10mm	800	10 to 20 per country	1000 units in U.S.	1000 units in U.S.
U.S. 19	 Crew: 2 Max speed: 10 Armament: 12mm MG Armored: 10mm	800			1000 units in U.S.
U.S. 20	 Crew: 2 Max speed: 10 Armament: 12mm MG Armored: 10mm	800			1000 units in U.S.

INFANTRY WEAPONS

Appendix 2 to Annex X

Weapon	Caliber	Type of Fire	Weight in kg (lb)	Feed	Effective Range in meters	Rate of Fire	Ammunition	Number of Operators	Remarks
Pistol Type 54	7.62mm	Semi auto	Unloaded 0.765	8 round box magazine	50	10 rpm	50x25mm	40 in infantry battalion	Chinese produced copy of Soviet PM 1913
Pistol Type 55	9mm	Semi auto	Unloaded 0.67	8 round box magazine	50	10 rpm	9x18mm		Chinese produced copy of Soviet PM
Carbine Type 56	7.62mm	Semi auto	Unloaded 3.85	10 round box magazine	400	35-40 rpm	7.62x39mm (M148)	160 in infantry battalion	Copy of Soviet SAG
Rifle Type 56	7.62mm	Auto or semi auto	Unloaded 3.9	10 round box magazine	400	Auto 100 rpm Semi auto 40-60 rpm	7.62x39mm (M148)	160 in airborne battalion	Chinese designed - probably requiring Type 56 carbine
Assault Rifle Type 56	7.62mm	Auto or semi auto	Unloaded 2.91	10 round box magazine	400	Auto 100 rpm Semi auto 40 rpm	7.62x39mm (M148)	220 in airborne battalion	Chinese produced copy of Soviet AK-47
Light machine gun Type 56-1	7.62mm	Auto	Unloaded 6.6	100 round drum	1000	35 rpm	7.62x39mm (M148)	20 in infantry battalion	Molded copy of Soviet RPD
Light machine gun Type 56	7.62mm	Auto	Unloaded 13.0	40 round drum magazine or 250 round belts	1000	200-250 rpm	7.62x39mm (M148)	3 in infantry battalion	Copy of Soviet PP-46
Machine gun Type 67	7.62mm	Auto or semi auto	Unloaded 5.0	40 round box magazine or 75 round drum magazine	800	Auto 150 rpm Semi auto 50 rpm	7.62x39mm (M148)		A temporary weapon machine gun
Submachine gun Type 58	7.62mm								Chinese designed submachine gun
Heavy machine gun Type 53-57	7.62mm	Auto	Unloaded 115	150 round drum	1000	250-300 rpm	7.62x39mm (M148)	6 in infantry battalion	Copy of Soviet DShK M148 12.5V


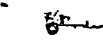
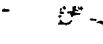



INFANTRY WEAPONS

Appendix 2 to Annex X
(continued)

Weapons	Caliber	Type of Fire	Weight (kilograms)	Feed	Effective Range (meters)	Practical Rate of Fire	Ammunition	Number in Organization	Remarks
Small Arms									
Heavy machinegun Type 54	12.7mm	Auto	Unmanned	50 round belts	Ground target 1500 Air target 1000	80 ipm	Standing 12.7mm	6 in infantry regiment	Copy of Soviet Model DPM M1918-46
Mortars									
Mortar Type 63	60mm		12		Max 1510 Min 200	15-20 ipm		6 in infantry battalion	Chinese designed
Mortar Type 53	82mm		56		Max 1040 Min 100	15-25 ipm	Airblast 46 105kg	6 in infantry battalion	Copy of Soviet 182mm mortar M 1937
Artillery									
Grenade launcher Type 56	Launcher 40mm Projectile 80mm		2.94		150	4-6 ipm	HEAT	42 Troops 55 67 grenade launchers in infantry battalion	Modified copy of Soviet RPG-2
Grenade launcher Type 59	Launcher 40mm Projectile 85mm		6.3		550	4-6 ipm	HEAT		Modified copy of Soviet RPG-7
Recoilless Rifle Type 56	57mm		29.1		450	15 ipm	HEAT	3 in infantry battalion	Modified U.S. design
Recoilless Rifle Type 56	75mm		46.3		640	10 ipm	HEAT	3 in recoilless rifle company in infantry regiment	Standard PL in PRC units modified U.S. design
Recoilless Rifle Type 55	82mm		29.2		450	6 ipm	HEAT		Chinese designed probably replacing 75mm Type 56 lighter version of Soviet B-10



Appendix 3 to Annex X

ARTILLERY

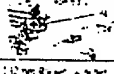
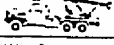
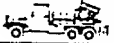
Equipment	Technical Characteristics				Number by Organization	Reference Annex	Remarks
	Maximum range (meters)	Ammo	HE prn weight (pounds)	Rate of Fire (rpm)			
122mm howitzer Type 54 	11,800	HE HEAT	48	5.6	12 in arty regt w/dm 12 in arty regt armd dm 6 in each arty regt arty dm 3 in arty bn BD dm 3 in arty bn ID dm	C H A R S	Copy of Soviet M1918
122mm Gun Type 60 	24,500	HE APHE	55	6.7	6 in each arty regt arty dm 6 in each gun regt gun dm	A I	Copy of Soviet D 74
120mm how Gun Type 59 	22,500	HE	215	5.6	6 in each arty regt arty dm 6 in each gun regt gun dm	A I	Chinese designed. On 122mm Gun Type 60 chassis
122mm how Gun Type 	12,430	HE sem AP	nd	3.4	6 in each arty regt arty dm	A	Copy of Soviet M1943
122mm Gun howitzer Type 56 	18,520	HE APHE	56	5	6 in each arty regt arty dm 6 in each gun regt gun dm	A I	Copy of Soviet D 20 On 122mm Gun Type 60 chassis
Self-propelled howitzer (probably 122mm) 	(See 122mm Howitzer Type 54)						China's first designed and produced self-propelled gun. Believed to be a 122mm howitzer Type 54 mounted on an M1967 APC

Appendix 3 to Annex X
(Continued)

ARTILLERY

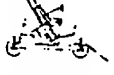

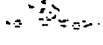
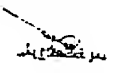
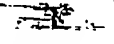

Equipment	Technical Characteristics				Number to Organization	Ratio to Enemy	Remarks
	Rate of fire per min	Range m	Armor penetration at 0° mm	Rate of fire rpm			
57mm AT Gun Type 55 	1:20 120 mag	100 500m	140 at 500m	25			
85mm AT Gun Type 55 	1:20 120 mag	110 at 1000m	210 at 1000m	25-30			Copy of Soviet D-44

Weapon	Caliber	Angle of elevation	Effective Range (meters)	Optical Range m	Ammunition (kilograms)	Scale of fire	Remarks
Machine Gun Type 55	12.7mm	25°	Max 5,700 Min 300	1,500m	Ammo 10, 15.8	Target 12.7mm machine gun effective to	Copy of Soviet 12.7mm heavy M311
Machine Gun Type 55	14.5mm	1:20	Max 4,000 Min 250	2,000m	Ammo 10, 15.5		Copy of Soviet 14.5mm heavy M311

Equipment	Technical Characteristics				Number to Organization	Ratio to Enemy	Remarks
	Number of tube	Maximum range (meters)	Weight (kilograms)	Reload time (minutes)			
107mm Rocket Launcher 	12	4,200	45	3	10 in 100		made of aluminum, 100 and weighs 140 pounds, less than the Type 55
122mm Rocket Launcher BM-14 	16	4,200	90.7	5:12	10 in 100 150 in 100		
140mm Rocket Launcher BM-14 	16	4,200	140	7			


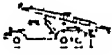
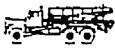

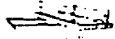
Appendix 3 to Annex X
(continued)

ARTILLERY

Assignment	Technical Characteristics			Number by Organization	Refer to Annex	Remarks
Artillery Guns	Start range (meters)	Cycle rate of fire (rpm)	Range Control			
145mm AA-MG Type 55 	1 400	2 400	optic	53 in AAA div 9 in AAA bn. gnd div	L I	Towed four barrels. Copy of Soviet ZPU 1
145mm AA-MG Type 55 	1 400	1 200	optic	12 in AAA bn. unld div 12 in AAA bn. armed div 10 in AAA bn. arty div 9 in AAA bn. At arty div 15 in airborne div	C H A W G	Towed two barrels. Copy of Soviet ZPU 2
37mm AA Gun Type 55 	3 000	160-180	optic	18 in AAA bn. inf div 15 in AAA bn. armed div 15 in AAA bn. arty div 15 in AAA bn. At arty div	C — A W	Copy of Soviet M1919
57mm AA Gun Type 55 	6 000	120	range optic			Towed single barrel. Copy of Soviet S60
45mm AA Gun 	4 362	15-20	range			Copy of Soviet AS 18
100mm AA Gun Type 53 	11 700	15	range	43 in AAA Division		A standard weapon of air defense units AAA. Copy of Soviet AS 19

Appendix 4 to Annex X

ENGINEER EQUIPMENT

Equipment	Technical Characteristics	Role	Organization	Refer to Annex	Remarks
<p>Heavy launched bridges</p>  <p>T54 MLU</p>	<p>Load class: 60 Span: 11 m Launch time: approx 3 min</p>	Cantilever tank bridge			
 <p>TRM</p>	<p>Load class: 15 Span unit: 7 m Span set of 5 units: 35 m</p>	Truck launched treadway bridge			
 <p>TRM</p>	<p>Load class: 50 Span unit: 10.8 m Span set of 6 units: 64.6 m</p>	Truck mounted scissors bridge			
 <p>TRM</p>	<p>Load class: up to 70 Length of bridge: 181 m Assembly time: 20 min</p>	Heavy ponton bridge	Ponton Bridge regiment	R	
 <p>TRM</p>	<p>Load class: 70 Length of bridge: 90.9 m Assembly time: 3 hours</p>	Heavy ponton bridge	Ponton Bridge regiment	R	

3

SIGNAL EQUIPMENT

Communications Equipment Designation	Frequency (Mhz/Power)	Type of Emission	Power (Amps)	Transportability	Using Status	Remarks
BA200 RI2E-145						
A 184	1.15	Not applicable	Not applicable	Manpack vehicle	Army Division Regiment	Copy of Soviet R 211 Receives A1, A2 and A3 emissions
194-41, 214	2.12 (213 Bauds)	Not applicable	Not applicable	Manpack	Regiment and below	Receives A1, A2 and A3 emissions
214	Unknown	Not applicable	Not applicable			
A15, A16, A5, A5 (A1)	954.32 AS 430 954.25 AS 430A	Not applicable	Not applicable	N/A	W. Telen Region	Universal AM receiving equipment. Cabinet mounted
75.2	15.25 (5 Bauds)	Not applicable	Not applicable	N/A	W. Telen Region	Receives A1, A2 and A3 emissions
22143 RI2A1						
Unknown (R 421, Soviet)	63.63 975	F2, F3, F9	25	Vehicle	Army Division Ar. Detachment	Provides 2 telephone and 2 teletype channels on 1 tube (54 lines) Frequencies 1 all at times Used for command and administration only
Unknown (R 422, Soviet)	63.63 975	F2, F3, F9	25	Vehicle	Army Division Ar. Detachment	Relay element of R 401
Unknown (R 422, Soviet) 2nd Detachment	2200 1400	F5	9.0	N/A	W. Telen Region	Provides 4 voice channels
Unknown (R 422, Soviet) 3rd Detachment	2200 1400	F5	9.0	N/A	W. Telen Region	Provides 4 voice channels
Unknown	2200 1400	F5	9.0	N/A	W. Telen Region	Provides 2 to 8 voice channels
22143 RI2A1	231.2		10.4 A1 15.4 A2	Manpack vehicle	Regiment and below	
22143 RI2A1	231.2		10.4 A1 15.4 A2	Manpack vehicle	Regiment and below	
22143 RI2A1 22143 AS 212 1400	231.2	A1, A2, A3	15.0	Manpack vehicle	Regiment and below	Electronic copy of U.S. AN CRC 9
22143 RI2A1	231.2	A1, A3	17.0	Manpack vehicle (2 person)	Regiment and below	Electronic copy of U.S. SCR 694 in limited use probably used by airborne forces
Unknown (R 421, Soviet)	231.32	F5	1.2	Manpack	Regiment and below	
Unknown (2 man, Soviet)	231.2 325.4 Bauds	A1, A1	25.4 A1 15.4 A2	Manpack	Company and below	Transmits and receives
Unknown	40.48	F3	05	Vehicle	Regiment and below	

70: 3 1V 22.05

Impulse Velocity: 14.

- 1) Warm - Warm-up continuous wave (CW)
- 2) To see any mediated manual Warm-up (WU)
- 3) To see the results of the full cycle

Frequency Modulation (FM)

- F1 Frequency shift telegraph, single channel
- F2 Frequency modulated voice code
- F3 Telephony
- F9 Composite transmission

Appendix 5 to Annex X
(continued)

SIGNAL EQUIPMENT

Item No.	Frequency MHz (MHz)	Type & Location	Power (Watts)	Temperature	Unit (Unit)	Remarks
RADIO TRANSCEIVERS						
1.100	15.25-15.35	11	1.1	Mobile vehicle	Regiment and Division	Intentional 1.100 of Signal R 1100
1.110	24.165	11	1.1	Mobile vehicle	Regiment and Division	Intentional 24.165 of Signal R 1100
1.120	29.22-29.35	11	1.1	110	Regiment and Division	Intentional 29.22 of Signal R 1100
1.130	24.4-24.5	11	1.1	110	Regiment and Division	Intentional 24.4 of Signal R 1100
1.140	24.24	11	0.2	Mobile	Company and Division	Intentional 24.24 of Signal R 1100
1.150	15.6 2 bands	11	1.1	Lightweight Mobile	Regiment and Division	Intentional 15.6 of Signal R 1100
1.160	55.65	11	1.1	Handman Hand	Regiment and Division	Intentional 55.65 of Signal R 1100
1.170	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.180	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.190	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.200	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.210	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.220	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.230	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.240	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.250	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.260	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.270	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.280	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.290	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.300	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.310	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.320	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.330	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.340	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.350	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.360	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.370	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.380	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.390	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.400	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.410	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.420	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.430	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.440	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.450	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.460	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.470	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.480	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.490	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100
1.500	24.1-24.2	11	1.1	Handman Hand	Regiment and Division	Intentional 24.1-24.2 of Signal R 1100

Frequency 15.25-15.35

Frequency 24.165

1. Mobile Vehicle (Handman Hand)
2. Handman Hand (Handman Hand)
3. Handman Hand (Handman Hand)

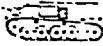

4. Handman Hand (Handman Hand)
5. Handman Hand (Handman Hand)
6. Handman Hand (Handman Hand)
7. Handman Hand (Handman Hand)

1






SIGNAL EQUIPMENT

[illegible]

TRACKED TRACTORS



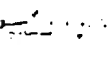


Vehicle Artillery	Weight (kilograms)	Maximum Payload (kilograms)	Towed Load (kilograms)	Cruising Range (kilometers)	Remarks
ATP Armored Tractor 	6 300	3 to 6 men	3 150	320	Mounts one 7.62mm tank machinegun
Armored Tractor Type 55 					Chinese designed and produced heavy artillery tractor
AT 5 Artillery Tractor	12 000	7 to 10 men	16 000	380	Used in art. regt. army and probably in some art'y divisions

LOAD-CARRYING, WHEELED VEHICLES

Trucks	Weight (kilograms)	Maximum Payload (kilograms)	Towed Load (kilograms)	Cruising Range (kilometers)	Remarks
BJ202 2-ton Cargo Truck 4x4 	1 500	425		440	Chinese produced, common man's use and reconnaissance vehicle
CAZ53 2-ton Cargo Truck 4x4 (Soviet) 	3 200	2 000	2 000	780	Limited number in service. Used as prime mover for mortars and light artillery pieces
GAZ51 2-ton Cargo Truck 4x4 (Soviet) 	2 500	2 500	2 500	450	Relatively large numbers still in service. Cargo and prime mover use
ZIL150 4-ton Cargo Truck 4x2 (Soviet) 	3 500	4 000	4 500	500	Relatively large numbers still in service. Cargo and prime mover use
ZIL164 4-ton Cargo Truck 4x2 (Soviet) 	4 100	4 300	6 400	475	Cargo and prime mover use

Appendix 7 to Annex X
(continued)

LOAD-CARRYING, WHEELED VEHICLES -

Vehicle	Weight (kg/2204 lbs)	Maximum Payload (kg/2204 lbs)	Speed (km/h/24.8 mph)	Driving Range (km/miles)	Remarks
CA 2140 (1970) 4x4 	3540	2540		400	Chinese produced version of ZIL 157. Extra capacity at cargo capacity.
CA 2140 (1970) 4x4 	5500	4500	2400	600	Extra capacity at cargo capacity.
CA 2140 (1970) 4x4 	5500	4500	2400	600	Extra capacity at cargo capacity.
CA 2140 (1970) 4x4 	5500	4500	2400	600	Chinese produced version of ZIL 157. Extra capacity at cargo capacity.
CA 2140 (1970) 4x4 	3440	2400	2400	600	Chinese produced version of the Soviet ZIL 157. Extra capacity at cargo capacity.

Appendix B to Annex X

CHEMICAL EQUIPMENT

Equipment	Technical Characteristics	Organization	Operating Dates	Comments
2001.1	Experimental machine	INTA	1	First experimental machine
2002	Experimental machine	INTA	1	Second machine
2003	Experimental machine	INTA	1	
2004	Experimental machine	INTA	1	First machine with engine
2005	Experimental machine	INTA	1	Second machine with engine
2006	Experimental machine	INTA	1	Third machine with engine
2007	Experimental machine	INTA	1	Fourth machine with engine
2008	Experimental machine	INTA	1	Fifth machine with engine
2009	Experimental machine	INTA	1	Sixth machine with engine
2010	Experimental machine	INTA	1	Seventh machine with engine
2011	Experimental machine	INTA	1	Eighth machine with engine
2012	Experimental machine	INTA	1	Ninth machine with engine
2013	Experimental machine	INTA	1	Tenth machine with engine
2014	Experimental machine	INTA	1	Eleventh machine with engine
2015	Experimental machine	INTA	1	Twelfth machine with engine
2016	Experimental machine	INTA	1	Thirteenth machine with engine
2017	Experimental machine	INTA	1	Fourteenth machine with engine
2018	Experimental machine	INTA	1	Fifteenth machine with engine
2019	Experimental machine	INTA	1	Sixteenth machine with engine
2020	Experimental machine	INTA	1	Seventeenth machine with engine
2021	Experimental machine	INTA	1	Eighteenth machine with engine
2022	Experimental machine	INTA	1	Nineteenth machine with engine
2023	Experimental machine	INTA	1	Twentieth machine with engine
2024	Experimental machine	INTA	1	Twenty-first machine with engine
2025	Experimental machine	INTA	1	Twenty-second machine with engine
2026	Experimental machine	INTA	1	Twenty-third machine with engine
2027	Experimental machine	INTA	1	Twenty-fourth machine with engine
2028	Experimental machine	INTA	1	Twenty-fifth machine with engine
2029	Experimental machine	INTA	1	Twenty-sixth machine with engine
2030	Experimental machine	INTA	1	Twenty-seventh machine with engine
2031	Experimental machine	INTA	1	Twenty-eighth machine with engine
2032	Experimental machine	INTA	1	Twenty-ninth machine with engine
2033	Experimental machine	INTA	1	Thirtieth machine with engine
2034	Experimental machine	INTA	1	Thirty-first machine with engine
2035	Experimental machine	INTA	1	Thirty-second machine with engine
2036	Experimental machine	INTA	1	Thirty-third machine with engine
2037	Experimental machine	INTA	1	Thirty-fourth machine with engine
2038	Experimental machine	INTA	1	Thirty-fifth machine with engine
2039	Experimental machine	INTA	1	Thirty-sixth machine with engine
2040	Experimental machine	INTA	1	Thirty-seventh machine with engine
2041	Experimental machine	INTA	1	Thirty-eighth machine with engine
2042	Experimental machine	INTA	1	Thirty-ninth machine with engine
2043	Experimental machine	INTA	1	Fortieth machine with engine
2044	Experimental machine	INTA	1	Forty-first machine with engine
2045	Experimental machine	INTA	1	Forty-second machine with engine
2046	Experimental machine	INTA	1	Forty-third machine with engine
2047	Experimental machine	INTA	1	Forty-fourth machine with engine
2048	Experimental machine	INTA	1	Forty-fifth machine with engine
2049	Experimental machine	INTA	1	Forty-sixth machine with engine
2050	Experimental machine	INTA	1	Forty-seventh machine with engine
2051	Experimental machine	INTA	1	Forty-eighth machine with engine
2052	Experimental machine	INTA	1	Forty-ninth machine with engine
2053	Experimental machine	INTA	1	Fiftieth machine with engine
2054	Experimental machine	INTA	1	Fifty-first machine with engine
2055	Experimental machine	INTA	1	Fifty-second machine with engine
2056	Experimental machine	INTA	1	Fifty-third machine with engine
2057	Experimental machine	INTA	1	Fifty-fourth machine with engine
2058	Experimental machine	INTA	1	Fifty-fifth machine with engine
2059	Experimental machine	INTA	1	Fifty-sixth machine with engine
2060	Experimental machine	INTA	1	Fifty-seventh machine with engine
2061	Experimental machine	INTA	1	Fifty-eighth machine with engine
2062	Experimental machine	INTA	1	Fifty-ninth machine with engine
2063	Experimental machine	INTA	1	Sixtieth machine with engine
2064	Experimental machine	INTA	1	Sixty-first machine with engine
2065	Experimental machine	INTA	1	Sixty-second machine with engine
2066	Experimental machine	INTA	1	Sixty-third machine with engine
2067	Experimental machine	INTA	1	Sixty-fourth machine with engine
2068	Experimental machine	INTA	1	Sixty-fifth machine with engine
2069	Experimental machine	INTA	1	Sixty-sixth machine with engine
2070	Experimental machine	INTA	1	Sixty-seventh machine with engine
2071	Experimental machine	INTA	1	Sixty-eighth machine with engine
2072	Experimental machine	INTA	1	Sixty-ninth machine with engine
2073	Experimental machine	INTA	1	Seventieth machine with engine
2074	Experimental machine	INTA	1	Seventy-first machine with engine
2075	Experimental machine	INTA	1	Seventy-second machine with engine
2076	Experimental machine	INTA	1	Seventy-third machine with engine
2077	Experimental machine	INTA	1	Seventy-fourth machine with engine
2078	Experimental machine	INTA	1	Seventy-fifth machine with engine
2079	Experimental machine	INTA	1	Seventy-sixth machine with engine
2080	Experimental machine	INTA	1	Seventy-seventh machine with engine
2081	Experimental machine	INTA	1	Seventy-eighth machine with engine
2082	Experimental machine	INTA	1	Seventy-ninth machine with engine
2083	Experimental machine	INTA	1	Eightieth machine with engine
2084	Experimental machine	INTA	1	Eighty-first machine with engine
2085	Experimental machine	INTA	1	Eighty-second machine with engine
2086	Experimental machine	INTA	1	Eighty-third machine with engine
2087	Experimental machine	INTA	1	Eighty-fourth machine with engine
2088	Experimental machine	INTA	1	Eighty-fifth machine with engine
2089	Experimental machine	INTA	1	Eighty-sixth machine with engine
2090	Experimental machine	INTA	1	Eighty-seventh machine with engine
2091	Experimental machine	INTA	1	Eighty-eighth machine with engine
2092	Experimental machine	INTA	1	Eighty-ninth machine with engine
2093	Experimental machine	INTA	1	Ninetieth machine with engine
2094	Experimental machine	INTA	1	Ninety-first machine with engine
2095	Experimental machine	INTA	1	Ninety-second machine with engine
2096	Experimental machine	INTA	1	Ninety-third machine with engine
2097	Experimental machine	INTA	1	Ninety-fourth machine with engine
2098	Experimental machine	INTA	1	Ninety-fifth machine with engine
2099	Experimental machine	INTA	1	Ninety-sixth machine with engine
2100	Experimental machine	INTA	1	Ninety-seventh machine with engine
2101	Experimental machine	INTA	1	Ninety-eighth machine with engine
2102	Experimental machine	INTA	1	Ninety-ninth machine with engine
2103	Experimental machine	INTA	1	One hundred machine with engine
2104	Experimental machine	INTA	1	One hundred and first machine with engine
2105	Experimental machine	INTA	1	One hundred and second machine with engine
2106	Experimental machine	INTA	1	One hundred and third machine with engine
2107	Experimental machine	INTA	1	One hundred and fourth machine with engine
2108	Experimental machine	INTA	1	One hundred and fifth machine with engine
2109	Experimental machine	INTA	1	One hundred and sixth machine with engine
2110	Experimental machine	INTA	1	One hundred and seventh machine with engine
2111	Experimental machine	INTA	1	One hundred and eighth machine with engine
2112	Experimental machine	INTA	1	One hundred and ninth machine with engine
2113	Experimental machine	INTA	1	One hundred and tenth machine with engine
2114	Experimental machine	INTA	1	One hundred and eleventh machine with engine
2115	Experimental machine	INTA	1	One hundred and twelfth machine with engine
2116	Experimental machine	INTA	1	One hundred and thirteenth machine with engine
2117	Experimental machine	INTA	1	One hundred and fourteenth machine with engine
2118	Experimental machine	INTA	1	One hundred and fifteenth machine with engine
2119	Experimental machine	INTA	1	One hundred and sixteenth machine with engine
2120	Experimental machine	INTA	1	One hundred and seventeenth machine with engine
2121	Experimental machine	INTA	1	One hundred and eighteenth machine with engine
2122	Experimental machine	INTA	1	One hundred and nineteenth machine with engine
2123	Experimental machine	INTA	1	One hundred and twentieth machine with engine
2124	Experimental machine	INTA	1	One hundred and twenty-first machine with engine
2125	Experimental machine	INTA	1	One hundred and twenty-second machine with engine
2126	Experimental machine	INTA	1	One hundred and twenty-third machine with engine
2127	Experimental machine	INTA	1	One hundred and twenty-fourth machine with engine
2128	Experimental machine	INTA	1	One hundred and twenty-fifth machine with engine
2129	Experimental machine	INTA	1	One hundred and twenty-sixth machine with engine
2130	Experimental machine	INTA	1	One hundred and twenty-seventh machine with engine
2131	Experimental machine	INTA	1	One hundred and twenty-eighth machine with engine
2132	Experimental machine	INTA	1	One hundred and twenty-ninth machine with engine
2133	Experimental machine	INTA	1	One hundred and thirtieth machine with engine
2134	Experimental machine	INTA	1	One hundred and thirty-first machine with engine
2135	Experimental machine	INTA	1	One hundred and thirty-second machine with engine
2136	Experimental machine	INTA	1	One hundred and thirty-third machine with engine
2137	Experimental machine	INTA	1	One hundred and thirty-fourth machine with engine
2138	Experimental machine	INTA	1	One hundred and thirty-fifth machine with engine
2139	Experimental machine	INTA	1	One hundred and thirty-sixth machine with engine
2140	Experimental machine	INTA	1	One hundred and thirty-seventh machine with engine
2141	Experimental machine	INTA	1	One hundred and thirty-eighth machine with engine
2142	Experimental machine	INTA	1	One hundred and thirty-ninth machine with engine
2143	Experimental machine	INTA	1	One hundred and fortieth machine with engine
2144	Experimental machine	INTA	1	One hundred and forty-first machine with engine
2145	Experimental machine	INTA	1	One hundred and forty-second machine with engine
2146	Experimental machine	INTA	1	One hundred and forty-third machine with engine
2147	Experimental machine	INTA	1	One hundred and forty-fourth machine with engine
2148	Experimental machine	INTA	1	One hundred and forty-fifth machine with engine
2149	Experimental machine	INTA	1	One hundred and forty-sixth machine with engine
2150	Experimental machine	INTA	1	One hundred and forty-seventh machine with engine
2151	Experimental machine	INTA	1	One hundred and forty-eighth machine with engine
2152	Experimental machine	INTA	1	One hundred and forty-ninth machine with engine
2153	Experimental machine	INTA	1	One hundred and fiftieth machine with engine
2154	Experimental machine	INTA	1	One hundred and fifty-first machine with engine
2155	Experimental machine	INTA	1	One hundred and fifty-second machine with engine
2156	Experimental machine	INTA	1	One hundred and fifty-third machine with engine
2157	Experimental machine	INTA	1	One hundred and fifty-fourth machine with engine
2158	Experimental machine	INTA	1	One hundred and fifty-fifth machine with engine
2159	Experimental machine	INTA	1	One hundred and fifty-sixth machine with engine
2160	Experimental machine	INTA	1	One hundred and fifty-seventh machine with engine
2161	Experimental machine	INTA	1	One hundred and fifty-eighth machine with engine
2162	Experimental machine	INTA	1	One hundred and fifty-ninth machine with engine
2163	Experimental machine	INTA	1	One hundred and sixtieth machine with engine
2164	Experimental machine	INTA	1	One hundred and sixty-first machine with engine
2165	Experimental machine	INTA	1	One hundred and sixty-second machine with engine
2166	Experimental machine	INTA	1	One hundred and sixty-third machine with engine
2167	Experimental machine	INTA	1	One hundred and sixty-fourth machine with engine
2168	Experimental machine	INTA	1	One hundred and sixty-fifth machine with engine
2169	Experimental machine	INTA	1	One hundred and sixty-sixth machine with engine
2170	Experimental machine	INTA	1	One hundred and sixty-seventh machine with engine
2171	Experimental machine	INTA	1	One hundred and sixty-eighth machine with engine
2172	Experimental machine	INTA	1	One hundred and sixty-ninth machine with engine
2173	Experimental machine	INTA	1	One hundred and seventieth machine with engine
2174	Experimental machine	INTA	1	One hundred and seventy-first machine with engine
2175	Experimental machine	INTA	1	One hundred and seventy-second machine with engine
2176	Experimental machine	INTA	1	One hundred and seventy-third machine with engine
2177	Experimental machine	INTA	1	One hundred and seventy-fourth machine with engine
2178	Experimental machine	INTA	1	One hundred and seventy-fifth machine with engine
2179	Experimental machine	INTA	1	One hundred and seventy-sixth machine with engine
2180	Experimental machine	INTA	1	One hundred and seventy-seventh machine with engine
2181	Experimental machine	INTA	1	One hundred and seventy-eighth machine with engine
2182	Experimental machine	INTA	1	One hundred and seventy-ninth machine with engine
2183	Experimental machine	INTA	1	One hundred and eightieth machine with engine
2184	Experimental machine	INTA	1	One hundred and eighty-first machine with engine
2185	Experimental machine	INTA	1	One hundred and eighty-second machine with engine
2186	Experimental machine	INTA	1	One hundred and eighty-third machine with engine
2187	Experimental machine	INTA	1	One hundred and eighty-fourth machine with engine
2188	Experimental machine	INTA	1	One hundred and eighty-fifth machine with engine
2189	Experimental machine	INTA	1	One hundred and eighty-sixth machine with engine
2190	Experimental machine	INTA	1	One hundred and eighty-seventh machine with engine
2191	Experimental machine	INTA	1	One hundred and eighty-eighth machine with engine
2192	Experimental machine	INTA	1	One hundred and eighty-ninth machine with engine
2193	Experimental machine	INTA	1	One hundred and ninetieth machine with engine
2194	Experimental machine	INTA	1	One hundred and ninety-first machine with engine
2195	Experimental machine	INTA	1	One hundred and ninety-second machine with engine
2196	Experimental machine	INTA	1	One hundred and ninety-third machine with engine
2197	Experimental machine	INTA	1	One hundred and ninety-fourth machine with engine
2198	Experimental machine	INTA	1	One hundred and ninety-fifth machine with engine
2199	Experimental machine	INTA	1	One hundred and ninety-sixth machine with engine
2200	Experimental machine	INTA	1	One hundred and ninety-seventh machine with engine
2201	Experimental machine	INTA	1	One hundred and ninety-eighth machine with engine
2202	Experimental machine	INTA	1	One hundred and ninety-ninth machine with engine
2203	Experimental machine	INTA	1	Two hundred machine with engine
2204	Experimental machine	INTA	1	Two hundred and first machine with engine
2205	Experimental machine	INTA	1	Two hundred and second machine with engine
2206	Experimental machine	INTA	1	Two hundred and third machine with engine
2207	Experimental machine	INTA	1	Two hundred and fourth machine with engine
2208	Experimental machine	INTA	1	Two hundred and fifth machine with engine
2209	Experimental machine	INTA	1	Two hundred and sixth machine with engine
2210	Experimental machine	INTA	1	Two hundred and seventh machine with engine
2211	Experimental machine	INTA	1	Two hundred and eighth machine with engine
2212	Experimental machine	INTA	1	Two hundred and ninth machine with engine
2213	Experimental machine	INTA	1	Two hundred and tenth machine with engine
2214	Experimental machine	INTA	1	Two hundred and eleventh machine with engine
2215	Experimental machine	INTA	1	Two hundred and twelfth machine with engine
2216	Experimental machine	INTA	1	Two hundred and thirteenth machine with engine
2217	Experimental machine	INTA	1	Two hundred and fourteenth machine with engine
2218	Experimental machine	INTA	1	Two hundred and fifteenth machine with engine
2219	Experimental machine	INTA	1	Two hundred and sixteenth machine with engine
2220	Experimental machine	INTA	1	Two hundred and seventeenth machine with engine
2221	Experimental machine	INTA	1	Two hundred and eighteenth machine with engine
2222	Experimental machine	INTA	1	Two hundred and nineteenth machine with engine
2223	Experimental machine	INTA	1	Two hundred and twentieth machine with engine
2224	Experimental machine	INTA	1	Two hundred and twenty-first machine with engine
2225	Experimental machine	INTA	1	Two hundred and twenty-second machine with engine
2226	Experimental machine	INTA	1	Two hundred and twenty-third machine with engine
2227	Experimental machine	INTA	1	Two hundred and twenty-fourth machine with engine
2228	Experimental machine	INTA	1	Two hundred and twenty-fifth machine with engine
2229	Experimental machine	INTA	1	Two hundred and twenty-sixth machine with engine
2230	Experimental machine	INTA	1	Two hundred and twenty-seventh machine with engine
2231	Experimental machine	INTA	1	Two hundred and twenty-eighth machine with engine
2232	Experimental machine	INTA	1	Two hundred and twenty-ninth machine with engine
2233	Experimental machine	INTA	1	Two hundred and thirtieth machine with engine
2234	Experimental machine	INTA	1	Two hundred and thirty-first machine with engine
2235	Experimental machine	INTA	1	Two hundred and thirty-second machine with engine
2236	Experimental machine	INTA	1	Two hundred and thirty-third machine with engine
2237	Experimental machine	INTA	1	Two hundred and thirty-fourth machine with engine
2238	Experimental machine	INTA	1	Two hundred and thirty-fifth machine with engine
2239	Experimental machine	INTA	1	Two hundred and thirty-sixth machine with engine
2240	Experimental machine	INTA	1	Two hundred and thirty-seventh machine with engine
2241	Experimental machine	INTA	1	Two hundred and thirty-eighth machine with engine
2242	Experimental machine	INTA	1	Two hundred and thirty-ninth machine with engine
2243	Experimental machine	INTA	1	Two hundred and fortieth machine with engine
2244	Experimental machine	INTA	1	Two hundred and forty-first machine with engine
2245	Experimental machine	INTA	1	Two hundred and forty-second machine with engine
2246	Experimental machine	INTA	1	Two hundred and forty-third machine with engine
2247	Experimental machine	INTA	1	Two hundred and forty-fourth machine with engine
2248	Experimental machine	INTA	1	Two hundred and forty-fifth machine with engine
2249	Experimental machine	INTA	1	Two hundred and forty-sixth machine with engine
2250	Experimental machine	INTA	1	Two hundred and forty-seventh machine with engine
2251	Experimental machine	INTA	1	Two hundred and forty-eighth machine with engine
2252	Experimental machine	INTA	1	Two hundred and forty-ninth machine with engine
2253	Experimental machine	INTA	1	Two hundred and fiftieth machine with engine
2254	Experimental machine	INTA	1	Two hundred and fifty-first machine with engine
2255	Experimental machine	INTA	1	Two hundred and fifty-second machine with engine
2256	Experimental machine	INTA	1	Two hundred and fifty-third machine with engine
2257	Experimental machine	INTA	1	Two hundred and fifty-fourth machine with engine
2258	Experimental machine	INTA	1	Two hundred and fifty-fifth machine with engine
2259	Experimental machine	INTA	1	Two hundred and fifty-sixth machine with engine
2260	Experimental machine	INTA	1	Two hundred and fifty-seventh machine with engine
2261	Experimental machine	INTA	1	Two hundred and fifty-eighth machine with engine
2262	Experimental machine	INTA	1	Two hundred and fifty-ninth machine with engine
2263	Experimental machine	INTA	1	Two hundred and sixtieth machine with engine
2264	Experimental machine	INTA	1	Two hundred and sixty-first machine with engine
2265	Experimental machine	INTA	1	Two hundred and sixty-second machine with engine
2266	Experimental machine	INTA	1	Two hundred and sixty-third machine with engine
2267	Experimental machine	INTA	1	Two hundred and sixty-fourth machine with engine
2268	Experimental machine	INTA	1	Two hundred and sixty-fifth machine with engine
2269	Experimental machine	INTA	1	Two hundred and sixty-sixth machine with engine
2270	Experimental machine	INTA	1	Two hundred and sixty-seventh machine with engine
2271	Experimental machine	INTA	1	Two hundred and sixty-eighth machine with engine
2272	Experimental machine	INTA	1	

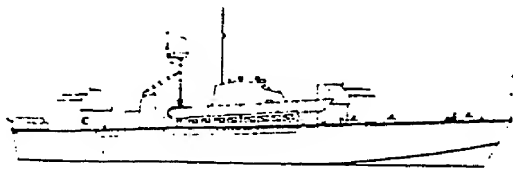
CHINESE NAVAL VESSELS



KIANGNAN FRIGATE (FE)



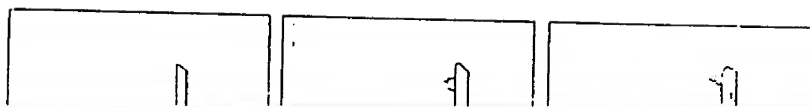
OSA MISSILE ATTACK BOAT (PTG)



P6 MOTOR TORPEDO BOAT (PT)



Annex Y

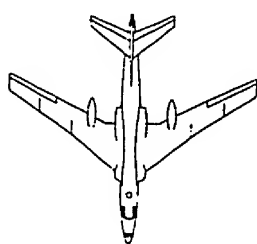


Annex Z
(continued)

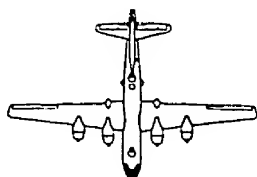
PRCAF AIRCRAFT

AIRCRAFT	ROLE	LENGTH	WING SPAN OR ROTOR DIAMETER	ENGINE	RANGE (MAXIMUM)	RADIUS (MAXIMUM)	MAX SPEED (KNOTS)	MAXIMUM PAW (LBS)
TRANSPORT								
COLT 442	Short range transport	41	59.4	1 piston	440		140 (cruise)	1,000 lbs
CRATE 1124	Short range transport	23	108	2 piston	1,164		175 (cruise)	9,000 lbs
CURL 4420	Short range transport	72	96	2 turboprop	1,345		241 (cruise)	11,000 lbs
CLINTON COMMANDO	Short range transport	174.1	26.8	2 piston	1,300	520	160 (cruise)	7,500 lbs
DOUGLAS C-119B	Short range transport	54.5	24.5	2 piston	1,100	191	145 (cruise)	6,500 lbs
HELICOPTER								
HOOR W-10	Heavy	128	115	2,000 hp turbine	235		167	28,455 lbs
HIP W-10	Medium	62	70	2,000 hp turbine	229		219	4,614 lbs
HOOND W-10	Medium	55	69	1 piston	259		150	15,750 lbs
SA 330 G-2000	Medium	65.11	62	1 turboprop	442		140	17,325 lbs

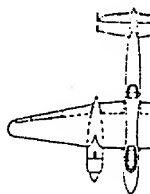
CHINESE AIRCRAFT



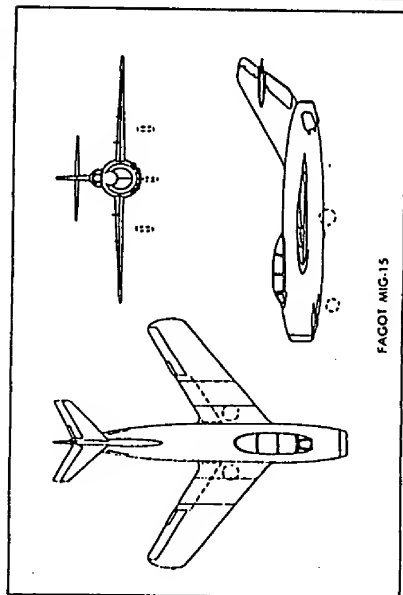
BADGER TU-16



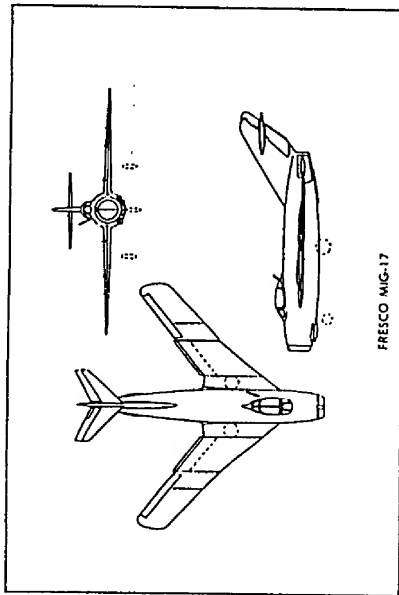
BULL TU-4



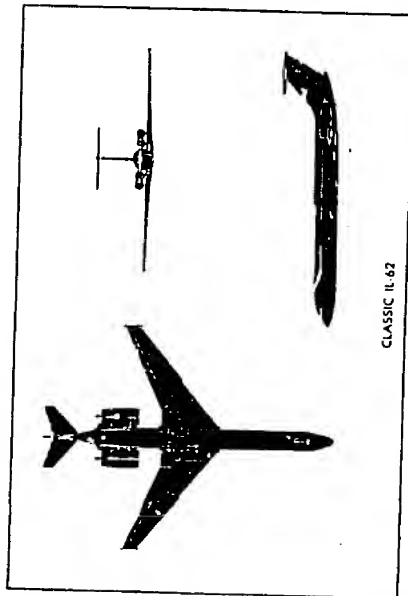
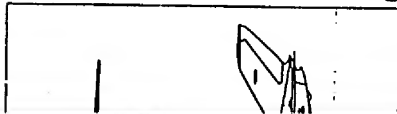
CHINESE AIRCRAFT



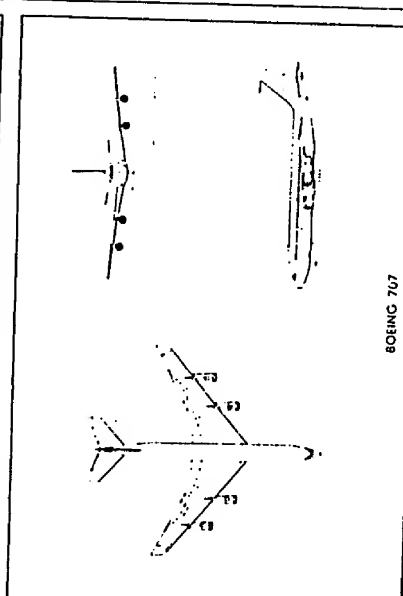
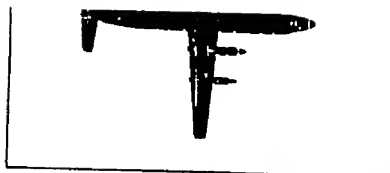
FAGOT MIG-15



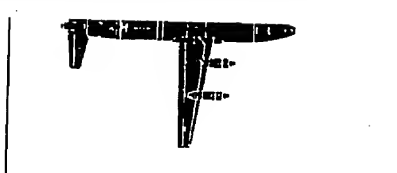
FRESCO MIG-17



CLASSIC IL 62

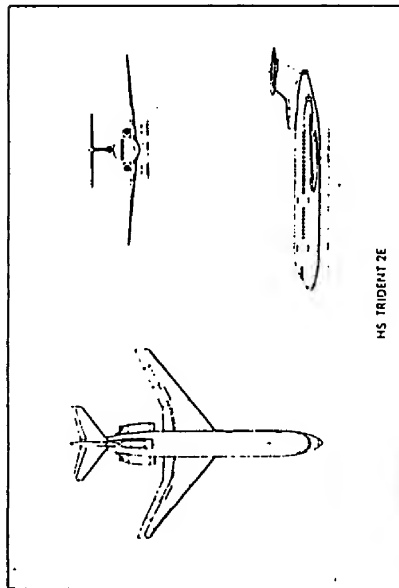
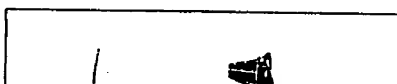


BOEING 707

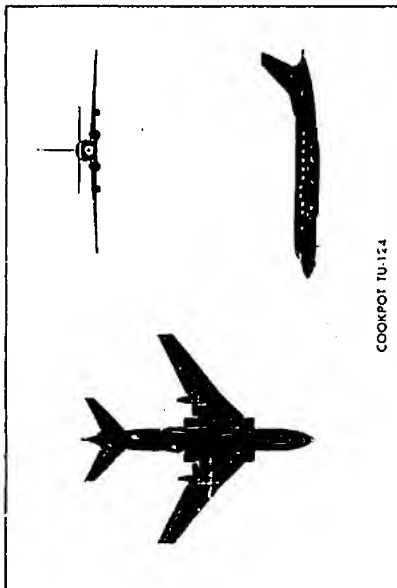


CHINESE AIRCRAFT

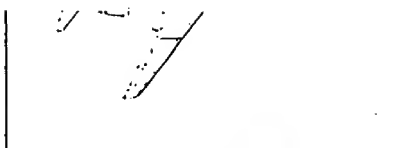
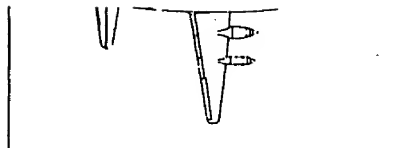
Z (continued)



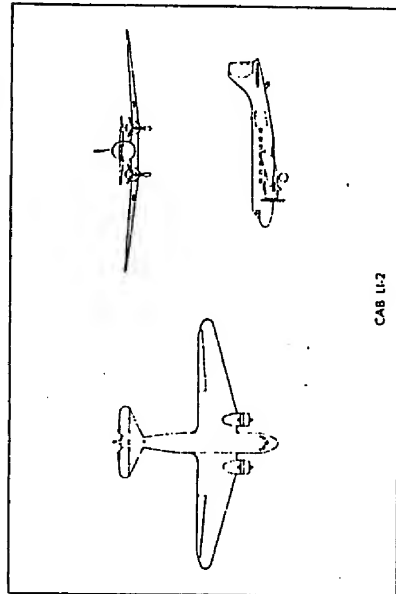
HS TRIDENT 2E



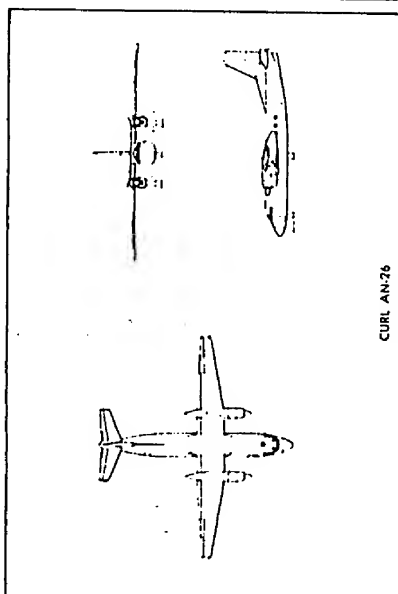
COCKPOUT TU-124



CHINESE AIRCRAFT

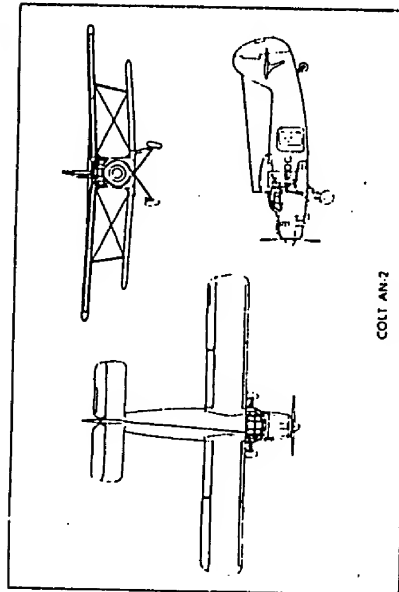
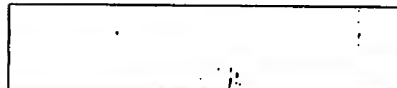


CAG 11-2

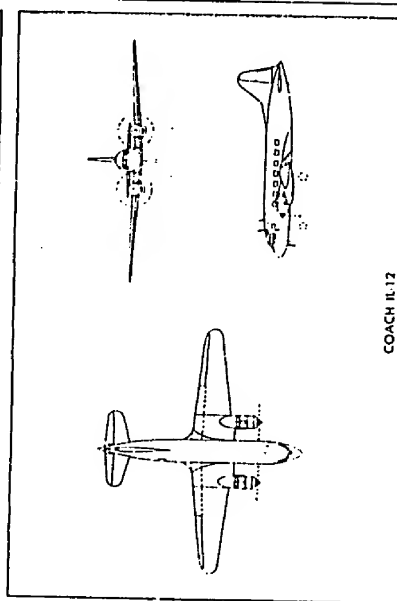


CAGL AN-26



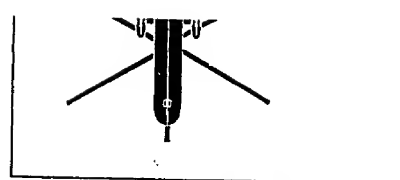
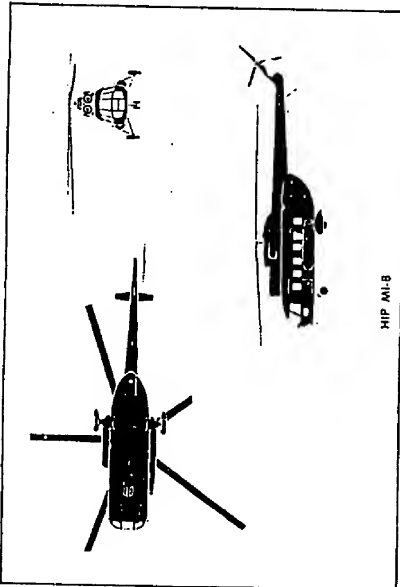
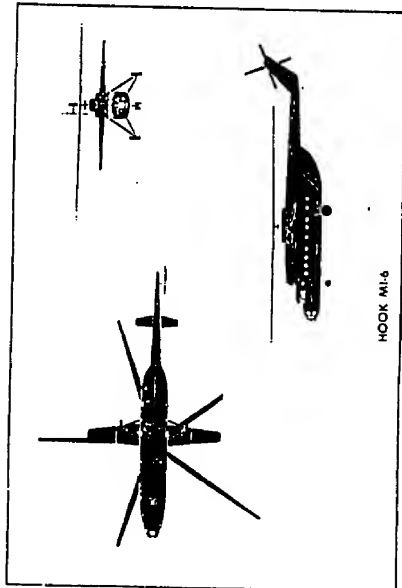


COLT AN-2





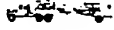


COACH IL-12





PRC MISSILES

System	Characteristics	Role
 NAEW	IOC 1966 Range 600 nautical miles Field 40,000 bullets Configuration Single stage Propellant Liquid	STRATEGIC Per China
 HSM	IOC 1972 Range 1,500 nautical miles Field 25 megatons Configuration Single stage Propellant Storable liquid	STRATEGIC Per China
 1,000 miles Range ICEM	IOC Mid to late seventies Range About 3,300 nautical miles Propellant Liquid	STRATEGIC
 CEP	IOC End of seventies Range About 7,200 nautical miles Propellant Liquid	STRATEGIC
 SA-2 SAM	Transportable medium range SAM system Six missile launchers per site One missile per launcher	AIR DEFENSE

DISTRIBUTION BY DIA-DS-4C

DOD AND JOINT AGENCIES

A024 DFF NUCLEAR AGCY
A115 OASD ISA
A117 OASD PA&F
A205 DMATC
A210 DMAAC
A219 DMAHC CODE DST-2
A310 JCST-3 (SP OP DIV)
A353 JSTPS
A045 DEF CIV PREP AGCY
A100 OSD
A124 OSD NET ASSESSMENT
A129 TRI-TAC

DIA

B040 DIA SC-2 (DIO) (3)
B055 DIA DT-4B
B080 DIA SWS
B132 DIA DT-1
B136 DIA DT-3
B161 DIA DT-1C
B162 DIA DT-1A2
B167 DIA DT-2B
B168 DIA DT-2C
B169 DIA DT-2D
B381 DIA DIR-2CS
B545 DIA DI
B566 DIA DIR-1F2
B574 DIA DIR-4G5
B579 DIA DIR-2B2 (4)
B581 DIA DIR-1B
B586 DIA DIR-4D1
B591 DIA DIR-1F1
B594 DIA DIR-1F (2)
B597 DIA DIR-1G1
B607 DIA DIR-2B1 (10)
B608 DIA DIR-2B4 (2)
B609 DIA DIR-4D2
B624 DIA DIR-3B1
B722 DIA DIR-5B
B737 DIA DS-4B4 (LIB) (5)
B793 DIA DIR-2B2
B794 DIA DIR-2B3
B795 DIA DIR-2C1

DIA (Cont'd)

B824 DIA DIR-4C
B898 DIA DIR-2
B899 DIA DIR-2A
B604 DIA DIR-4E2
B854 USDAO AUSTRALIA
B860 USDAO BURMA
B863 USDAO SRI LANKA
B887 USDAO INDIA
B888 USDAO INDONESIA
B896 USDAO JAPAN
B898 USDAO KOREA
B902 USDAO MALAYSIA
B907 USDAO NEPAL
B909 USDAO NEW ZEALAND
B913 USDAO PAKISTAN
B916 USDAO PHILIPPINES
B930 USDAO TAIWAN
B931 USDAO THAILAND
B940 DLO HONG KONG
B942 USDAO SINGAPORE

NAVY

D007 NIS HQ (CODE 27)
D008 NIS (2)
D033 STRATANAL SUPGRU
D035 OP 09BIBAR
D047 OP-37
D220 ONR
D248 NAVSLASYS COM
D258 DTNSRDC
D275 OP-951G
D280 OP-098D
D497 REWSON (PMF-107)
D505 COMNAVSLCGRU
D911 NAVOSURVINFLECTN
D941 OP-955
D971 OP-009F
D972 OP-009BIP
D974 OP-009R
D040 OCEANAV

AFS FORC

1070 AFS INDOC
 1077 AF RDMIR-W
 1018 AF RDMIR-C
 1020 AFS INZA
 1046 7602 ABG INXI
 1053 AF INAKA
 1054 AF INAKB
 1190 TAC 6TH IIS LDD (2)
 1230 VAC
 1226 AFOSI IVOA
 1228 AF TACT
 1243 AF X00FA
 1303 AF INAP
 1321 AF X0XXX
 1408 AFWL
 1411 ASD LID LHD
 1420 FID (5)
 1429 SAMSO (ND)
 1436 AF WCC SUR
 1437 AFS INI
 1451 AF T LSI
 1455 MAC
 1520 AF AIB
 1527 AF SAGI
 1540 AFIC
 1573 AFS INZ (6)
 1545 7602 ABG INXB

U & S COMMANDS

0025 CINCPAC
 0036 US COM DE FANALCTR

U & S COMMANDS (Cont'd)

1005 CINCLANT
 1500 CINCLANTFLT
 1515 FICURLANT
 K005 CINCPAC
 K007 COMUSJAPAN
 K010 COMUSKOREA
 K020 COMUSTDC
 K100 PACAF 548 RTG (2)
 K115 5TH AF
 K300 IPAC (CODE 523) (5)
 K320 USARJAPAN
 K340 1CORPS (ROK US) GP
 K500 CINCPACFLT
 K510 COMNAVFORJAPAN
 K514 COMHIDEFLT
 K515 COMSVNTHFLT
 K658 COMCSNAVPHIL

L040 SAC 544TH ARTW
 N005 USRI DCOM

OTHER

P005 IRBA
 P055 CIA CRS ADD SD (14)
 P085 STATE (5)
 P090 NSA (5)

S030 FRD Hb OF CONG

DISTRIBUTION BY SPEC PHILADELPHIA

NAVY

D151 NAVJODFACINDHEAD
D159 NAVAIRDEVCTN
D217 NAVWPNCEN
D246 NAVSURREWPCEN DAHL
D249 NAVPGSCOL
D263 NFAC
D361 FLIMINEWARTRACEN
D506 NAVUSLACTN
D561 NAVPEVLEAC KIRTLND
D808 6 ND
D261 NUSC NPT
D256 NAVSHIPWYSSENGSTA
D507 COMINWARCOM

NAVY COMMANDS

J505 COMNAVAIRLANF
J517 COMNAVSURFLAN1
J593 COMOPTEVFOR
J576 COMPHIBGRU 2

K761 FACELRON-129
K505 HICPAC
K525 COMNAVAIRPAC
K612 THRIDMARDIV
K650 COMNAVSURFPAC
K679 FLICORGRU 1
K681 DIPCOMOPTIVEORPAC
K991 HICPAC

ARMY DISTRIBUTION

Active Army: To be distributed in accordance with DA Form 129A requirements for Military Intelligence. A Qty rqr block no. 336.1

NG and USAR: None	10,500 copies
U.S. Army Infantry School	500 copies
U.S. Army Command and General Staff College	1,500 copies

MARINE CORPS DISTRIBUTION

Marine Corps Supply Center	1,800
----------------------------	-------

DISTRIBUTION SUMMARY

DIA Distribution	146 copies
DIA Stock	154 copies
DIA Total	300 copies
Army Distribution	
AG Publications	10,500 copies
Infantry School	500 copies
Command & General Staff College	1,500 copies
Navy Distribution	50 copies
Marine Corps Distribution	1,800 copies
TOTAL PRINT	14,000 copies